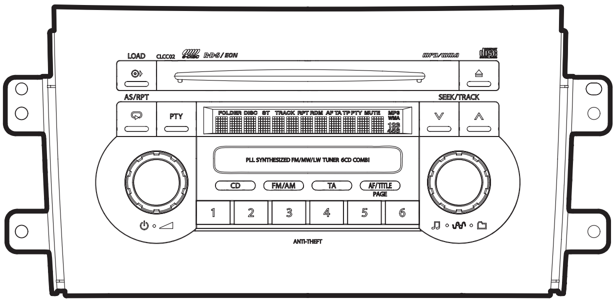
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Service Manual



SUZUKI Automobile Genuine RDS/FM/MW/LW TUNER CD COMBI

Model PS-3025K-A
(Genuine No.39101-80JA1-CZT)
(ID No.CLCC02)

Model PS-3025K-B
(Genuine No.39101-80JB1-CZT)
(ID No.CLCC02)

SPECIFICATIONS

Radio section

Tuning system:	PLL Freqeuency synthesizer system	
Receive range:	FM	87.5MHz to 108.0MHz
	MW	531kHz to 1602kHz
	LW	153kHz to 279kHz
Intermediate frequency:		
	FM	10.7 +0.2/-0.2MHz
	MW	1st 10.71 +0.2/-0.2MHz
		2nd 450 +3/-3kHz
	LW	1st 10.71 +0.03/-0.03MHz
		2nd 450 +3/-3kHz
FM Separation:		22 +5/-7dB
Quieting sensitivity:	FM	Less than 15dBu (at 30dB S/N)
	PS-3025K-A;	
	MW	Less than 34dBu (at 20dB S/N)
	LW	Less than 40dBu (at 20dB S/N)
	PS-3025K-B;	
	MW	Less than 39dBu (at 20dB S/N)
	LW	Less than 45dBu (at 20dB S/N)
Auto tuning stop sensitivity:		
	FM	22 +6/-6dBu
	PS-3025K-A;	
	MW	32 +6/-6dBu
	LW	32 +6/-6dBu
	PS-3025K-B;	
	MW	42 +6/-6dBu
	LW	42 +6/-6dBu

CD section

Disc:	12cm Disc
Separation:	More than 55dB
S/N ratio:	More than 70dB(JIS-A)
Distortion:	Less than 0.3%(20kHz-LPF)

MP3/WMA section

MP3 sampling rate:	11.025kHz to 48kHz
MP3 bit rate:	8kbps to 320kbps/VBR
WMA bit rate:	48kbps to 192kbps
Logical format:	ISO9660 level 1,2 JOLIET or Romeo

General

Rated Voltage :	DC 13.2V
Quiting Output:	More Than 12Wx4 (10% Dist.) More Than 16Wx4 (Max Output)
Back-up consumption:	Less than 5mA
Dimensions(mm):	248.4(W)x141.5(H)x176.9(D)
Weight:	approx.1.8kg

* Please measure it auto loud function off.The auto loud function off by pushed 1ch,2ch and the up button.

NOTE

* This model is a successor of PS-2809K.
* The control of velocity Loudness of the car is added to PS-2809K.
* Velocity Loudness of the car is from a vehicle side to a change in the pulse it and a changeable function of the Loudness characteristic
* We cannot supply PWB with component parts in principle. When a circuit on PWB has failure , please repair it by component parts base.
  Parts which are not mentioned in service manual are not supplied.
* Specifications and design are subject to change without notice for further improvement.
* WMA is the abbreviation of Windows Media Audio, an audio file format developed by Microsoft Corporation.
* This product includes technology owned by Microsoft Corporation and cannot be used or distributed without a license from MSLGP.

COMPONENTS

PS-3025K-A,B

1. Main unit --------------- 1

COMPUTER ANTI-THEFT SYSTEM

This unit has a built-in Computer Anti-Theft System(CATS) which makes the radio inoperative if power to the unit is interrupted for any reason whatsoever(including disconnection and reconnection of the car battery).The radio will remain inoperative unless you enter the correct CATS number.

To engineers in charge of repair or inspection of our products.

Before repair or inspection, make sure to follow the instructions so that customers and Engineers in charge of repair or inspection can avoid suffering any risk or injury.

1. Use specified parts.
   The system uses parts with special safety features against fire and voltage. Use only parts with equivalent characteristics when replacing them.
   The use of unspecified parts shall be regarded as remodeling for which we shall not be liable. The onus of product liability (PL) shall not be our responsibility in cases where an accident or failure is as a result of unspecified parts being used.
2. Place the parts and wiring back in their original positions after replacement or re-wiring.
   For proper circuit construction, use of insulation tubes, bonding, gaps to PWB, etc, is involved. The wiring connection and routing to the PWB are specially planned using clamps to keep away from heated and high voltage parts. Ensure that they are placed back in their original positions after repair or inspection.
   If extended damage is caused due to negligence during repair, the legal responsibility shall be with the repairing company.
3. Check for safety after repair.
   Check that the screws, parts and wires are put back securely in their original position after repair. Ensure for safety reasons there is no possibility of secondary ploblems around the repaired spots.
   If extended damage is caused due to negligence of repair, the legal responsibility shall be with the repairing company.
4. Caution in removal and making wiring connection to the parts for the automobile.
   Disconnect the battery terminal after turning the ignition key off. If wrong wiring connections are made with the battery connected, a short circuit and/or fire may occur. If extensive damage is caused due to negligence of repair, the legal responsibility shall be with the repairing company.
5. Cautions in soldering
   Please do not spread liquid flux in soldering.
   Please do not wash the soldering point after soldering.
6. Cautions in soldering for chip capacitors
   Please solder the chip capacitors after pre-heating for replacement because they are very weak to heat.
   Please do not heat the chip capacitors with a soldering iron directly.
7. Cautions in handling for chip parts.
   Do not reuse removed chips even when no abnormality is observed in their appearance. Always replace them with new ones. (The chip parts include resistors, capacitors, diodes, transistors, etc).
   Please make an operation test after replacement.
8. Cautions in handling flexible PWB
   Before working with a soldering iron, make sure that the iron tip temperature is around 270℃. Take care not to apply the iron tip repeatedly(more than three times)to the same patterns. Also take care not to apply the tip with force.
9. Turn the unit OFF during disassembly and parts replacement. Recheck all work before you apply power to the unit.
10. Cautions in checking that the optical pickup lights up.
    The laser is focused on the disc reflection surface through the lens of the optical pickup. When checking that the laser optical diode lights up, keep your eyes more than 30cms away from the lens. Prolonged viewing of the laser within 30cms may damage your eyesight.
11. Cautions in handling the optical pickup
    The laser diode of the optical pickup can be damaged by electrostatic charge caused by your clothes and body. Make sure to avoid electrostatic charges on your clothes or body, or discharge static electricity before handling the optical pickup.

11-1. Laser diode
The laser diode terminals are shorted for transportation in order to prevent electrostatic damage. After replacement, open the shorted circuit. When removing the pickup from the mechanism, short the terminals by soldering them to prevent this damage.

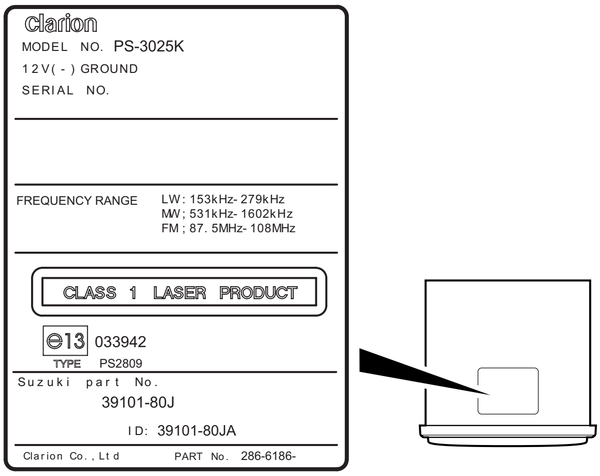
11-2. Actuator
The actuator has a powerful magnetic circuit. If a magnetic material is put close to it. Its characteristics will change. Ensure that no foreign substances enter through the ventilation slots in the cover.

11-3. Cleaning the lens
Dust on the optical lens affects performance.
To clean the lens, apply a small amount of isopropyl alcohol to lens paper and wipe the lens gently.

CAUTIONS

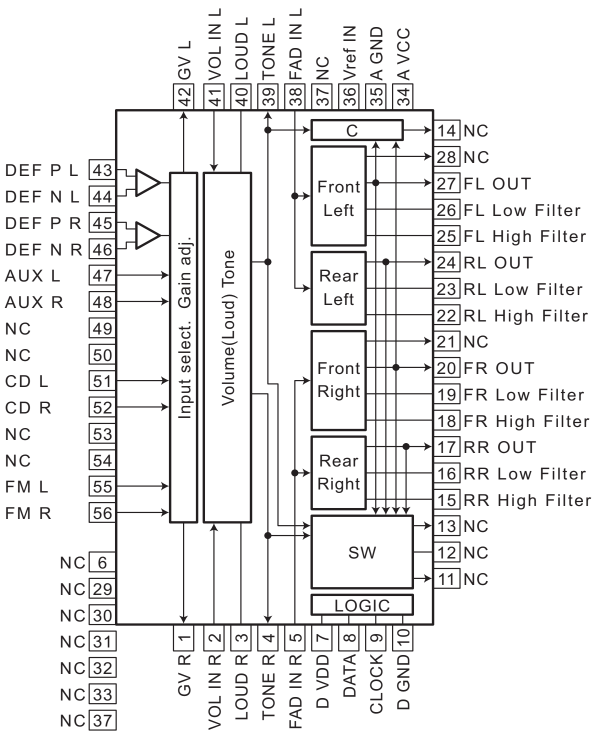
This appliance contains a laser system and is classified as a "CLASS 1 LASER PRODUCT". To use this model properly, read this Owner's Manual carefully and keep this manual for your future reference. In case of any trouble with this player, please contact your nearest"AUTHORIZED service station". To prevent direct exposure to the laser beam, do not try to open the enclosure.

Use of controls,adjustment,or performance of procedures other than those specified herein,may result in hazardous radiation exposure.



EXPLANATION OF IC

051-5046-90 CL7639V20 Electronic volume with Speed detector and Acoustic compensator



052-3211-01 M30624MGP-D92GP System Controller

Terminal Description

pin 1:	PLL CK	: O :	PLL clock pulse output.
pin 2:	PLL DO	: O :	PLL serial data output.
pin 3:	PLL CE	: O :	PLL chip enable signal output.
pin 4:	NU	: O :	Not in use.
pin 5:	NU	: O :	Not in use.
pin 6:	BYTE	: IN :	Data length selection(8bit/16bit).
pin 7:	CN VSS	: IN :	Connect to GND via a resistor.
pin 8:	ANT-ON / TP	: O :	Antenna-ON signal output, and the test signal output.
pin 9:	BL CONT	: O :	Back light control signal output.
pin 10:	RESET	: IN :	Reset signal input.
pin 11:	X out	: O :	Crystal connection.
pin 12:	GND	: - :	Ground.
pin 13:	X in	: IN :	Crystal connection.
pin 14:	VDD	: - :	Positive voltage supply.
pin 15:	NMI	: IN :	Nonmaskable interrupt. Connect to VDD via a resistor.
pin 16:	ACC DET	: IN :	ACC detection signal input.
pin 17:	BU DET	: IN :	Backup detection signal input.
pin 18:	Speed Pulse	: IN :	Speed pulse input.
pin 19:	BL ON	: O :	Back light ON command output.
pin 20:	NU	: O :	Not in use.
pin 21:	NU	: O :	Not in use.
pin 22:	VOL EQ CK	: O :	Clock pulse output to the volume IC or the equalizer IC.
pin 23:	VOL DATA	: O :	Serial data output to the volume IC.
pin 24:	BEEP	: O :	Beep out.
pin 25:	27pin connect	: IN :	Connect to 27pin.
pin 26:	VLCD ON	: O :	LCD-bias-voltage ON-signal output.
pin 27:	Ce-NET RX	: IN :	Serial data input from the Ce-NET.
pin 28:	Ce-NET TX	: O :	Serial data output to the Ce-NET.
pin 29:	FLASH TX	: O :	Flash memory Serial data output.
pin 30:	FLASH RX	: IN :	Flash memory Serial data input.
pin 31:	FLASH CK	: IN :	Flash memory Clock.
pin 32:	ILL ON	: IN :	Illumination ON signal input.
pin 33:	GIX SDA	: O :	Serial data output to 6CD-mechanism.
pin 34:	GIX CK	: O :	Serial clock output to 6CD-mechanism.
pin 35:	SYS ON	: O :	System ON signal output.
pin 36:	AMP ON	: O :	Audio power amplifier ON signal output.
pin 37:	AMP MUTE	: O :	Muting signal output to the Audio power amplifier.
pin 38:	NU	: O :	Not in use.
pin 39:	SYS ACC	: O :	ACC detect signal output.
pin 40:	CATS TP OUT	: O :	For CATS test.
pin 41:	CD ON	: O :	CD ON signal output.
pin 42:	RDS DI	: IN :	RDS data input.
pin 43:	RDS DIS CHG	: O :	RDS dis-charge signal output.
pin 44:	SPDUP/FLS CE	: O :	Station detection speed control / Flash memory Chip enable.
pin 45:	RDS MUTE	: O :	RDS mute signal output.
pin 46:	EEP CK	: O :	EEP-ROM clock pulse out.
pin 47:	EEP CS	: O :	EEP-ROM chip select signal out.

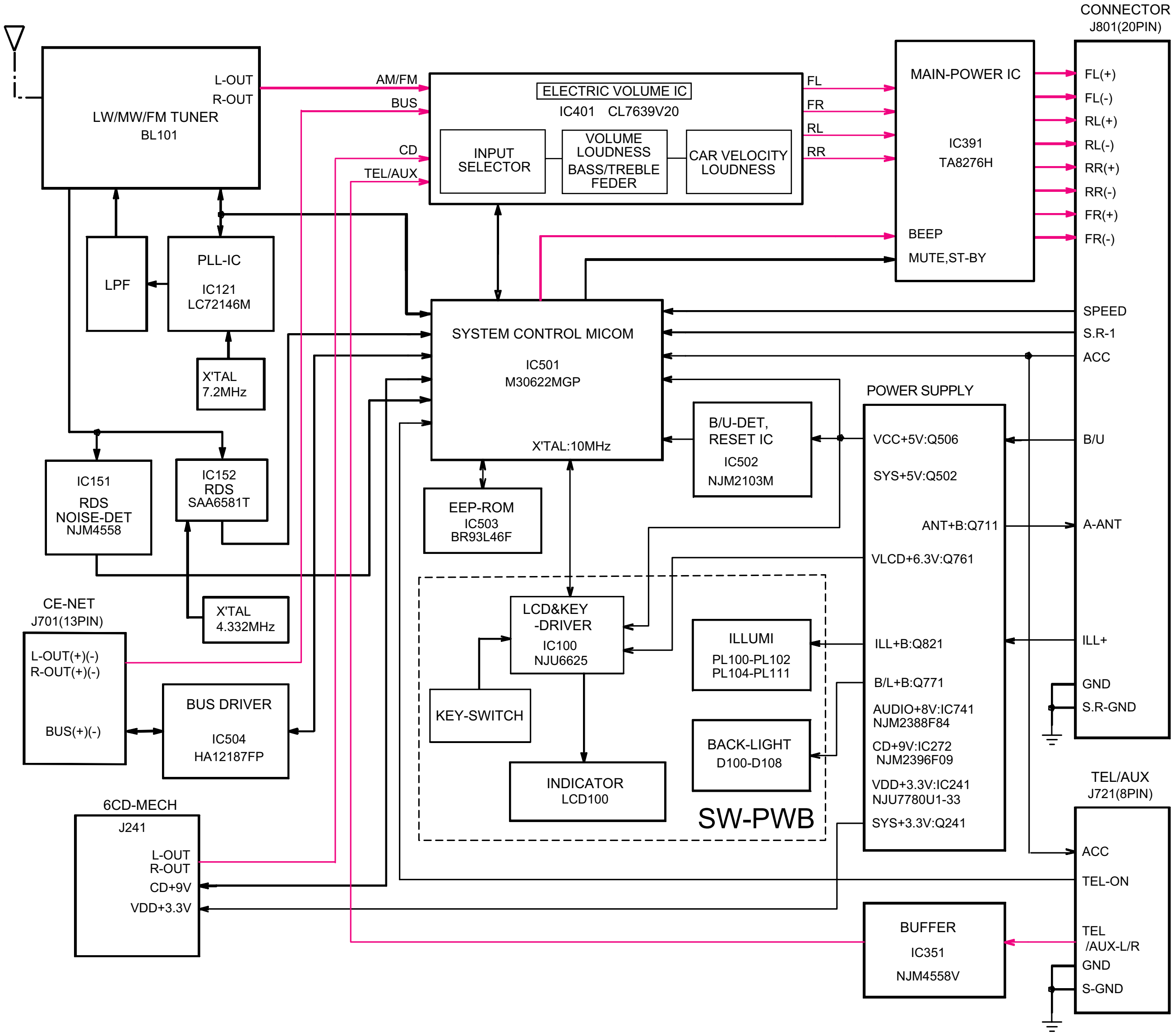
pin 48: EEP DO : O : Serial data output to EEP-ROM.
pin 49: EEP DI : IN : Serial data input from EEP-ROM.
pin 50: GIX SYS ACC : O : 6CD-mechanism system ACC control.
pin 51: GIX RESET : O : Reset pulse output to 6CD-mechanism.
pin 52: NU : O : Not in use.
pin 53: NU : O : Not in use.
pin 54: NU : O : Not in use.
pin 55: NU : O : Not in use.
pin 56: NU : O : Not in use.
pin 57: NU : IN : Not in use.
pin 58: NU : O : Not in use.
pin 59: NU : IN : Not in use.
pin 60: VDD : - : Positive voltage supply.
pin 61: NU : O : Not in use.
pin 62: GND : - : Ground.
pin 63: NU : O : Not in use.
pin 64: NU : O : Not in use.
pin 65: LCD RESET : O : Reset pulse output to the LCD.
pin 66: LCD CS : O : Chip select signal output to the LCD driver.
pin 67: LCD CK : O : Clock pulse output to the LCD driver.
pin 68: LCD DATA : I/O : Serial data input/output for the LCD driver.
pin 69: LCD REQ : IN : The key interrupt request signal input from the LCD driver.
pin 70: VOL 1 L : IN : Volume control pulse input from the rotary encoder.
pin 71: VOL 2 L : IN : Volume control pulse input from the rotary encoder.
pin 72: GIX REQ : IN : Request signal input from 6CD-mechanism.
pin 73: RDS CK : IN : RDS clock pulse input.
pin 74: VOL 1 R : IN : Volume control pulse input from the rotary encoder.
pin 75: VOL 2 R : IN : Volume control pulse input from the rotary encoder.
pin 76: NU : O : Not in use.
pin 77: NU : O : Not in use.
pin 78: NU : O : Not in use.
pin 79: NU : O : Not in use.
pin 80: NU : O : Not in use.
pin 81: NU : O : Not in use.
pin 82: NU : O : Not in use.
pin 83: SEL 1 : IN : L = 1CD, H = 6CD.
pin 84: SEL 2 : IN : Refer Table 1.
pin 85: SEL 3 : IN : Refer Table 1.
pin 86: SEL 4 : IN : L = Without EQ.
pin 87: POWER SW : IN : Power switch ON signal input.
pin 88: CD LOAD : IN : CD load switch signal input.
pin 89: CD EJECT : IN : CD eject switch signal input.
pin 90: NU : O : Not in use.
pin 91: NOISE : IN : The noise level for RDS.
pin 92: S METER : IN : The input terminal of the internal A/D converter to monitor the radio field strength.
pin 93: S REMOCON : IN : Steering wheel remote controller input.
pin 94: A VSS : - : Analog ground.
pin 95: AUX/TEL ON : IN : AUX/TEL ON signal input.
pin 96: Vref : - : Reference voltage.
pin 97: A VCC : - : Positive voltage supply for the internal analog section.
pin 98: SD/ST : IN : At receiving the FM station, this port detects the stereo signal. At seeking or scanning, this port detects the station detection signal.
pin 99: SD CONT : O : SD control signal output.
pin100: PLL DI : IN : PLL serial data input.

Table 1

	SX4
SEL 2 (pin 84)	L
SEL 3 (pin 84)	H

BLOCK DIAGRAM

Main section

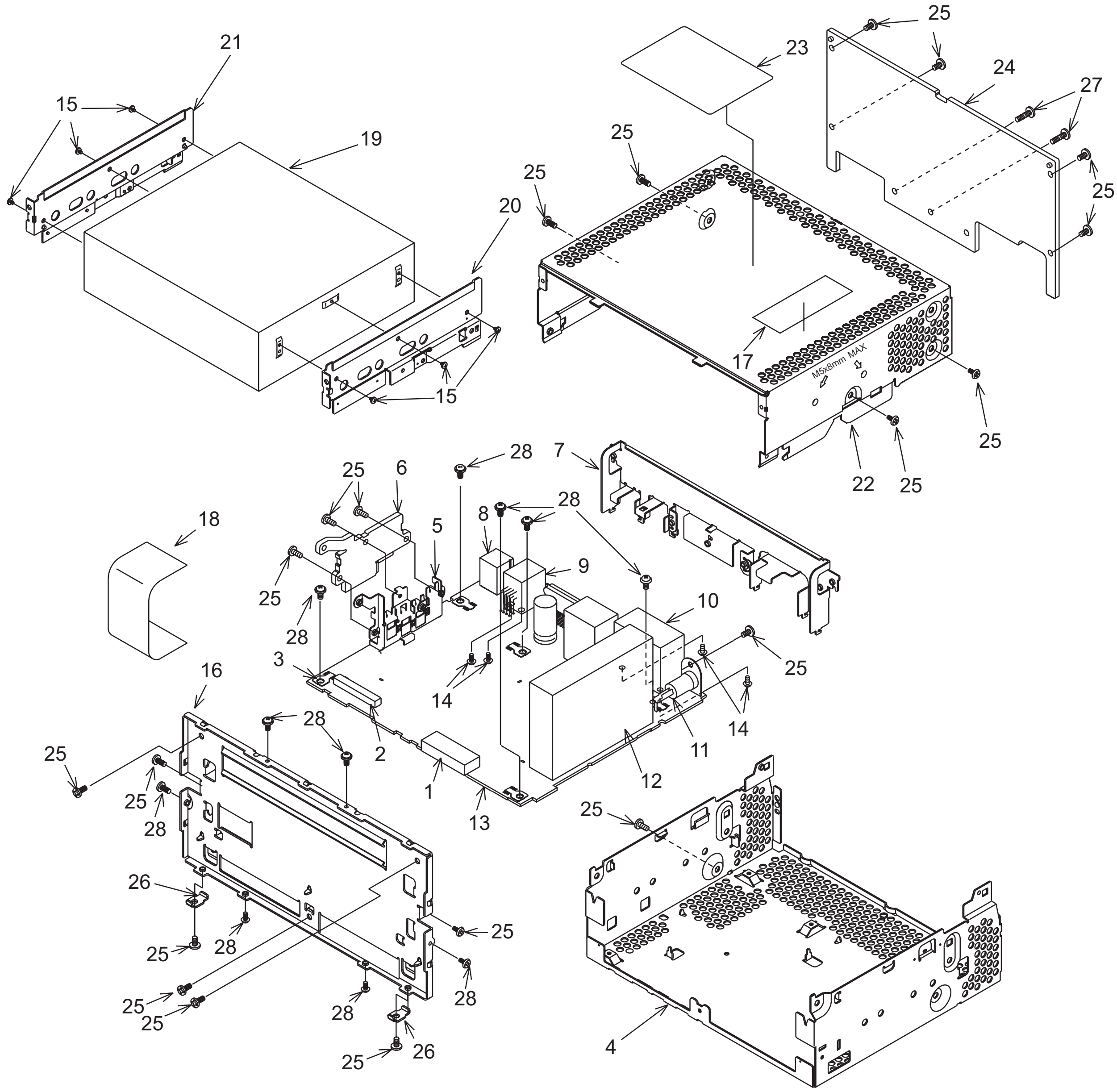


* Improvement feature

Do not hear it easily because of the running car noise, and it responds at the speed of the car and it changes low and high frequeency gain.

EXPLODED VIEW/PARTS LIST

Main section

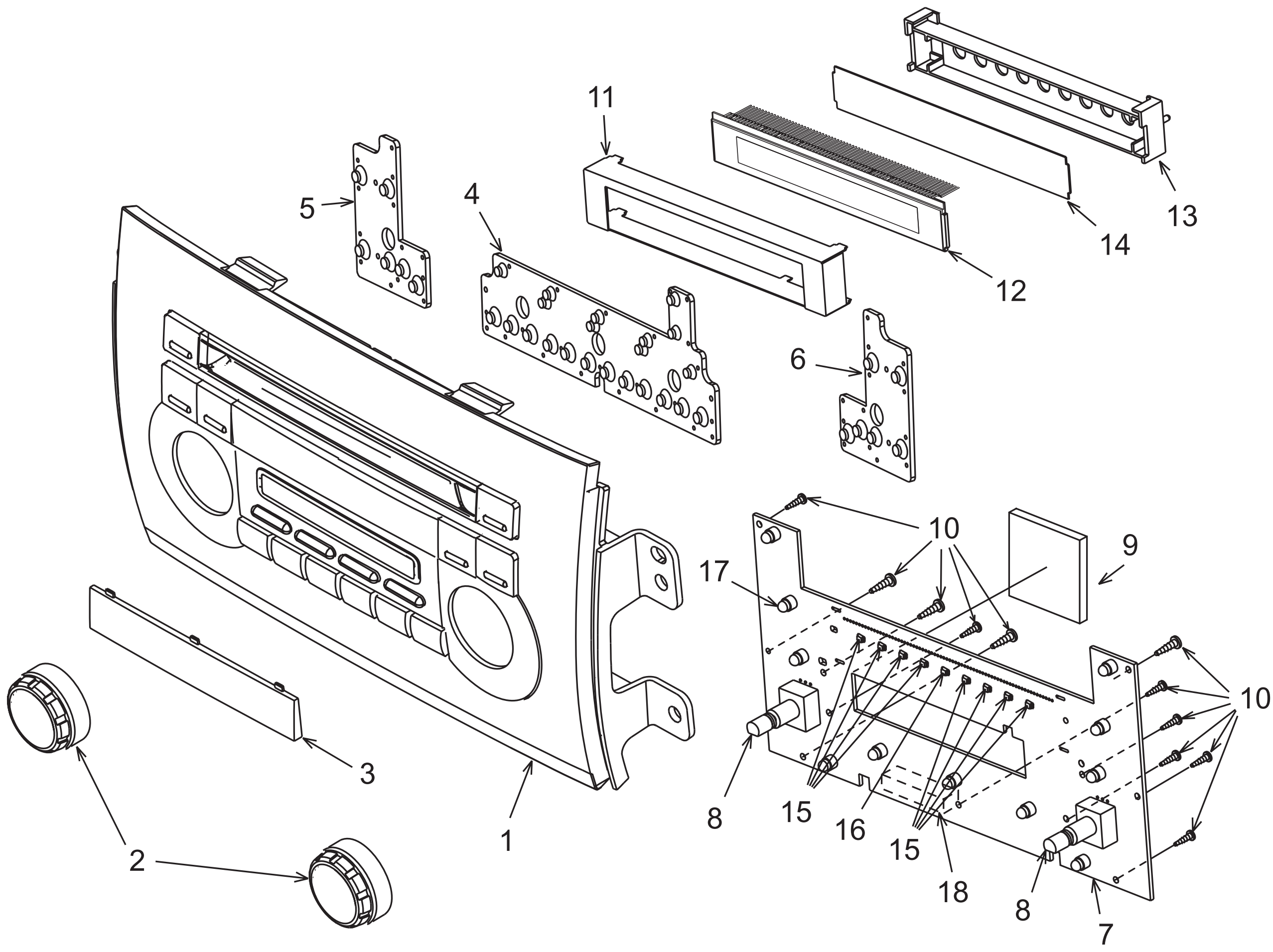


Clamping torque value of a screw is 0.4 +0.08/-0.08 Newton meter.

NO.	PART NO.	DESCRIPTION	Q'TY
1	076-3011-74	PLUG(24P)	1
2	074-1237-69	OUTLET SOCKET	1
3	073-0762-90	TERMINAL	5
4	311-1919-02	LOWER CASE	1
5	331-4126-00	TR HOLDER	1
6	313-1966-00	SUB HEAT SINK	1
7	331-4127-00	REAR PLATE	1
8	074-1194-00	OUTLET SOCKET	1
9	074-1302-08	OUTLET SOCKET	1
10	074-4007-20	OUTLET SOCKET	1
11	092-0702-00	ANT-RECEPT	1
12	941-0215-80	TUNER PACK	1
13	---------------	Main PWB	1
14	778-3006-00	TAP-SCREW(3x6)	4

NO.	PART NO.	DESCRIPTION	Q'TY
15	716-3552-00	IT SCREW(M2.3x2.5)	6
16	309-0819-10	ES PLATE	1
17	285-1960-00	GUIDE LABEL	1
18	816-4024-50	FLAT WIRE	1
19	929-0374-81	CD-MECH-MODULE	1
20	331-4091-10	CD BRKT(L)	1
21	331-4092-10	CD BRKT(R)	1
22	310-1826-10	UPPER CASE	1
23	286-6186-19	SETPLATE	1
24	313-1962-00	HEAT SINK	1
25	714-2606-8B	MACHINE SCREW(M2.6x6)	20
26	331-4193-20	SU-PLATE	2
27	714-2610-89	MACHINE SCREW(M2.6x10)	2
28	716-0878-50	IT SCREW(M2.6x5)	11

Escutcheon section



Clamping torque value of a screw is 0.2 +0.04/-0.04 Newton meter.

NO.	PART NO.	DESCRIPTION	Q'TY
1	940-8120-42	ESCUTCHEON ASSY	1
2	947-0602-00	KNOB ASSY	2
3	371-5854-00	DIAL COVER	1
4	345-5589-00	RUBBER SW (CENTER)	1
5	345-5590-00	RUBBER SW (LEFT)	1
6	345-5591-00	RUBBER SW (RIGHT)	1
7	---------------	Switch PWB	1
8	016-0014-12	VR W/SHAFT	2
9	345-6006-00	PROTECTOR	1

NO.	PART NO.	DESCRIPTION	Q'TY
10	716-0778-51	P-TITE SCREW (2x6)	11
11	331-4264-00	LCD COVER	1
12	379-1363-51	INDICATOR (LCD)	1
13	335-7705-00	LCD HOLDER	1
14	335-7929-00	COLOR FILTER	1
15	001-7048-91	DIODE RED	8
16	001-7087-90	DIODE RED	1
17	017-0420-43	PILOT LAMP (14V 40mA RED)	11
18	074-3013-74	OUTLETSOCKET	1

ELECTRICAL PARTS LIST

Main PWB section (B1)

Note)Some parts depend on each model.The model name is specified in the description.

REF No.	PART No.	DESCRIPTION
ANT101	092-0702-00	ANT-RECEPT
BL101	941-0215-80	TUNER PACK
		(PS-3025K-A)
	941-0221-80	TUNER PACK
		(PS-3025K-B)
C101	168-1022-55	1000pF K
C103	168-1022-55	1000pF K
C104	188-1073-28	10V 100uF
C105	168-1042-78	16V 0.1uF
C106	168-1042-78	16V 0.1uF
C107	188-1073-28	10V 100uF
C108	168-1042-78	16V 0.1uF
C109	168-2232-55	0.022uF K
C112	168-4745-79	0.47uF Z
C113	168-6832-78	0.068uF K
C114	168-6832-78	0.068uF K
C121	166-1501-50	15pF CH
C123	168-1042-78	16V 0.1uF
C124	042-1458-90	50V 1uF LN
C125	166-1501-50	15pF CH
C126	166-1011-50	100pF CH
C127	166-1011-50	100pF CH
C128	166-1011-50	100pF CH
C129	166-1011-50	100pF CH
C130	168-2232-55	0.022uF K
C131	188-4763-38	16V 47uF
C134	166-1011-50	100pF CH
C151	188-3363-27	10V 33uF
C152	178-1052-78	1uF
C153	188-4753-57	35V 4.7uF
C154	168-1042-78	16V 0.1uF
C155	168-2232-55	0.022uF K
C156	166-6811-50	680pF
C157	168-2232-55	0.022uF K
C158	166-8211-50	820pF
C159	168-1032-55	0.01uF K
C161	188-4763-18	6.3V 47uF
C162	168-1042-78	16V 0.1uF
C163	166-5611-50	560pF CH
C164	168-1032-55	0.01uF K
C165	166-3901-50	39pF CH
C166	166-3311-50	330pF CH
C167	188-2253-68	50V 2.2uF
C168	166-3901-50	39pF CH
C169	168-1822-55	1800pF K
C170	168-8222-55	8200pF K
C171	168-2232-55	0.022uF K
C212	188-4763-38	16V 47uF
C222	168-1042-78	16V 0.1uF
C241	168-2232-55	0.022uF K
C243	188-4763-38	16V 47uF
C244	168-1042-78	16V 0.1uF
C245	168-1042-78	16V 0.1uF
C274	189-2273-29	10V 220uF
C276	043-0328-90	0.1uF
C301	178-1052-78	1uF
C302	178-1052-78	1uF
C305	178-1052-78	1uF
C306	178-1052-78	1uF
C309	168-1832-55	0.018uF K
C310	168-1832-55	0.018uF K
C311	188-2253-68	50V 2.2uF
C312	188-2253-68	50V 2.2uF
C313	188-2253-68	50V 2.2uF
C314	188-2253-68	50V 2.2uF
C318	168-1522-55	1500pF K
C319	168-1522-55	1500pF K
C334	166-4711-50	470pF CH
C335	166-4711-50	470pF CH
C346	188-1073-28	10V 100uF
C352	168-1042-78	16V 0.1uF
C353	042-1562-15	10V 220uF
C354	166-2201-50	22pF CH
C355	166-2201-50	22pF CH
C356	166-1007-50	10pF CH
C357	166-1007-50	10pF CH
C358	188-1063-38	16V 10uF
C359	188-1063-38	16V 10uF
C360	188-1063-38	16V 10uF
C361	188-1063-38	16V 10uF
C391	168-1042-78	16V 0.1uF
C392	168-1042-78	16V 0.1uF
C393	168-1042-78	16V 0.1uF
C394	168-1042-78	16V 0.1uF
C395	168-1032-55	0.01uF K
C396	163-1053-65	50V 1uF
C397	042-1624-00	4700 16V
C398	163-1063-35	16V 10uF
C399	163-1053-65	50V 1uF
C400	166-2201-50	22pF CH
C401	166-3911-50	390pF CH
C402	043-0570-90	16V 2.2uF K
C403	168-5632-78	16V 0.056uF
C404	043-0570-90	16V 2.2uF K
C405	188-1063-38	16V 10uF
C406	188-1073-28	10V 100uF
C407	168-1042-78	16V 0.1uF
C408	166-3911-50	390pF CH
C409	043-0570-90	16V 2.2uF K
C410	168-5632-78	16V 0.056uF
C411	043-0570-90	16V 2.2uF K
C412	168-1042-78	16V 0.1uF
C417	178-4742-78	0.47uF
C418	168-4722-55	4700pF K
C419	178-4742-78	0.47uF
C420	168-4722-55	4700pF K
C421	178-4742-78	0.47uF
C422	168-4722-55	4700pF K
C423	178-4742-78	0.47uF
C424	168-4722-55	4700pF K
C501	168-1042-78	16V 0.1uF
C502	188-4763-18	6.3V 47uF
C503	168-1032-55	0.01uF K
C504	168-1032-55	0.01uF K
C505	168-1032-55	0.01uF K
C506	168-1042-78	16V 0.1uF
C507	188-1053-68	50V 1uF
C509	168-1022-55	1000pF K
C510	168-1022-55	1000pF K
C511	168-1042-78	16V 0.1uF
C512	168-1032-55	0.01uF K
C513	189-1073-29	10V 100uF
C514	168-1042-78	16V 0.1uF
C515	166-1011-50	100pF CH
C516	188-1063-38	16V 10uF
C517	042-0559-00	0.1F 5.5V
C722	168-1042-78	16V 0.1uF
C731	172-1041-15	0.1uF
C732	188-1053-68	50V 1uF
C741	043-0328-90	0.1uF
C744	188-1073-28	10V 100uF
C761	188-1063-38	16V 10uF
C762	188-1063-38	16V 10uF
C771	188-1073-28	10V 100uF
C772	188-1063-38	16V 10uF
C773	168-1042-78	16V 0.1uF
C774	178-4755-79	4.7uF
C811	172-1041-15	0.1uF
C821	188-1063-38	16V 10uF
CCT501	050-0140-54	1/32W 1k ohm x4J
CCT504	050-0140-54	1/32W 1k ohm x4J
CCT505	050-0140-54	1/32W 1k ohm x4J
D151	001-0580-90	1SS352
D152	001-0580-90	1SS352
D391	001-0580-90	1SS352
D504	001-0580-90	1SS352
D505	001-0580-90	1SS352
D506	001-2403-90	M1F60
D507	001-4301-25	HZU4.7B1
D508	001-0466-90	S5688B
D509	001-0504-36	HZS7A1L
D701	001-0424-31	MA4180
D702	001-0424-31	MA4180
D703	001-0424-31	MA4180
D711	001-0466-90	S5688B
D712	001-0466-90	S5688B
D731	001-0466-90	S5688B
D761	001-0504-39	HZS7B2L
D771	001-0347-43	MA4082LTA
D772	001-0347-24	MA4043H
D801	001-0592-00	RM4Z
D851	001-4301-68	HZU18B1
IC121	051-6201-90	LC72146M
IC151	051-3034-90	NJM4558V
IC152	051-4607-90	SAA6581T
IC241	051-3367-90	NJU7780U1-33-TE2
IC272	051-3334-00	NJM2396F0
IC351	051-3034-90	NJM4558V
IC391	051-2040-00	TA8276H
IC401	051-5046-90	CL7639V20
IC501	052-3211-01	M30624MGP-D92GP
IC502	051-0869-58	NJM2103M
IC503	051-9400-29	BR93L46F-W
IC504	051-6600-58	HA12187FP
IC741	051-3369-00	NJM2388F8
J241	074-1237-69	19PIN
J701	074-1194-00	13PIN
J721	074-1302-08	8PIN
J801	074-4007-20	20PIN
L101	010-2003-04	30uH
L102	010-6009-76	22uH J
L103	010-6009-76	22uH J
L121	010-6009-76	22uH J
L151	010-6027-00	220uH J
L501	010-6009-76	22uH J
L502	010-6009-76	22uH J
L801	010-8026-00	210uH
P501	076-3011-74	24P PLUG
Q121	191-1197-50	2SB1197K Q,R
Q122	191-1197-50	2SB1197K Q,R
Q123	191-1197-50	2SB1197K Q,R
Q151	125-2041-92	RT1N141M
Q152	192-4155-51	2SC4155A S,T
Q153	125-0034-92	RT1P141M
Q154	125-2041-92	RT1N141M
Q155	198-0669-00	2SK669
Q156	125-0034-92	RT1P141M
Q157	125-2041-92	RT1N141M
Q158	125-2041-92	RT1N141M
Q159	125-2038-92	RN1902
Q241	125-0034-92	RT1P141M
Q242	125-2041-92	RT1N141M
Q243	193-0601-00	2SD601A
Q244	192-4155-51	2SC4155A S,T
Q245	125-2041-92	RT1N141M
Q246	125-0034-92	RT1P141M
Q247	125-2041-92	RT1N141M
Q248	198-3018-00	2SK3018
Q249	198-3018-00	2SK3018
Q391	125-2041-92	RT1N141M
Q392	192-4155-51	2SC4155A S,T
Q502	190-2071-00	2SA2071 T100
Q503	192-4155-51	2SC4155A S,T

REF No.	PART No.	DESCRIPTION
Q504	192-4155-51	2SC4155A S,T
Q505	192-4155-51	2SC4155A S,T
Q506	193-2118-50	2SD2118F5 R,S
Q701	192-4155-51	2SC4155A S,T
Q711	190-2071-00	2SA2071 T100
Q712	192-4155-51	2SC4155A S,T
Q761	192-5810-00	2SC5810 TE12L
Q762	125-0034-92	RT1P141M
Q763	125-2041-92	RT1N141M
Q771	192-5886-00	2SC5886
Q772	192-4155-51	2SC4155A S,T
Q773	192-4155-51	2SC4155A S,T
Q774	192-4155-51	2SC4155A S,T
Q775	192-4155-51	2SC4155A S,T
Q776	125-0034-92	RT1P141M
Q777	125-2041-92	RT1N141M
Q821	190-2071-00	2SA2071 T100
Q822	192-4155-51	2SC4155A S,T
R101	119-0000-05	1/10W 0 ohm JW
R102	119-0000-05	1/10W 0 ohm JW
R103	119-1041-15	1/10W 100k ohm
R104	119-0000-05	1/10W 0 ohm JW
R105	119-4711-15	1/10W 470 ohm
R106	119-2221-15	1/10W 2.2k ohm
R107	116-1001-15	1/4W 10 ohm
R108	119-2231-15	1/10W 22k ohm
R109	119-4731-15	1/10W 47k ohm
R111	119-0000-05	1/10W 0 ohm JW
		(PS-3025K-A)
	166-8201-50	82pF CH
		(PS-3025K-B)
R122	119-2221-15	1/10W 2.2k ohm
R125	119-1021-15	1/10W 1k ohm
R127	119-5631-15	1/10W 56k ohm
R128	119-4731-15	1/10W 47k ohm
R130	119-2221-15	1/10W 2.2k ohm
R131	119-1031-15	1/10W 10k ohm
R132	119-1031-15	1/10W 10k ohm
R133	119-2221-15	1/10W 2.2k ohm
R134	119-2221-15	1/10W 2.2k ohm
R135	119-1031-15	1/10W 10k ohm
R151	119-1021-15	1/10W 1k ohm
R152	119-5621-15	1/10W 5.6k ohm
R153	119-3311-15	1/10W 330 ohm
R154	119-1021-15	1/10W 1k ohm
R155	119-3331-15	1/10W 33k ohm
R156	119-1031-15	1/10W 10k ohm
R157	119-1231-15	1/10W 12k ohm
R158	119-3321-15	1/10W 3.3k ohm
R159	119-1041-15	1/10W 100k ohm
R160	119-2211-15	1/10W 220 ohm
R161	119-0000-05	1/10W 0 ohm JW
R162	119-1021-15	1/10W 1k ohm
R163	119-1021-15	1/10W 1k ohm
R164	119-2221-15	1/10W 2.2k ohm
R165	119-5631-15	1/10W 56k ohm
R166	119-1231-15	1/10W 12k ohm
R167	116-3311-15	1/4W 330 ohm
R168	119-1031-15	1/10W 10k ohm
R169	119-2711-15	1/10W 270 ohm
R170	119-1021-15	1/10W 1k ohm
R171	119-0000-05	1/10W 0 ohm JW
R172	119-1021-15	1/10W 1k ohm
R173	119-1031-15	1/10W 10k ohm
R242	119-4731-15	1/10W 47k ohm
R243	119-1021-15	1/10W 1k ohm
R245	119-3331-15	1/10W 33k ohm
R246	119-4731-15	1/10W 47k ohm
R248	119-1041-15	1/10W 100k ohm
R250	119-3331-15	1/10W 33k ohm
R253	119-4731-15	1/10W 47k ohm
R255	119-3331-15	1/10W 33k ohm
R256	119-0000-05	1/10W 0 ohm JW

REF No.	PART No.	DESCRIPTION
R258	119-4731-15	1/10W 47k ohm
R271	119-4731-15	1/10W 47k ohm
R273	119-0000-05	1/10W 0 ohm JW
R301	119-1021-15	1/10W 1k ohm
R302	119-1021-15	1/10W 1k ohm
R305	119-1021-15	1/10W 1k ohm
R306	119-1021-15	1/10W 1k ohm
R309	119-1021-15	1/10W 1k ohm
R310	119-1021-15	1/10W 1k ohm
R311	119-5631-15	1/10W 56k ohm
R312	119-5631-15	1/10W 56k ohm
R313	119-5631-15	1/10W 56k ohm
R314	119-5631-15	1/10W 56k ohm
R323	119-0000-05	1/10W 0 ohm JW
R324	119-0000-05	1/10W 0 ohm JW
R325	119-0000-05	1/10W 0 ohm JW
R326	119-0000-05	1/10W 0 ohm JW
R351	119-8211-15	1/10W 820 ohm
R352	119-1021-15	1/10W 1k ohm
R353	032-0140-50	1/10W 10k ohm F
R354	032-0140-50	1/10W 10k ohm F
R355	032-0140-50	1/10W 10k ohm F
R356	032-0140-50	1/10W 10k ohm F
R357	032-0140-50	1/10W 10k ohm F
R358	032-0140-50	1/10W 10k ohm F
R359	032-0140-50	1/10W 10k ohm F
R360	032-0140-50	1/10W 10k ohm F
R391	119-5631-15	1/10W 56k ohm
R392	119-1221-15	1/10W 1.2k ohm
R393	119-2221-15	1/10W 2.2k ohm
R394	119-2221-15	1/10W 2.2k ohm
R395	119-2221-15	1/10W 2.2k ohm
R396	119-2221-15	1/10W 2.2k ohm
R397	119-1031-15	1/10W 10k ohm
R398	119-4731-15	1/10W 47k ohm
R399	119-4731-15	1/10W 47k ohm
R400	119-1031-15	1/10W 10k ohm
R401	119-2231-15	1/10W 22k ohm
R402	119-2021-15	1/10W 2k ohm
R403	119-2231-15	1/10W 22k ohm
R404	119-2021-15	1/10W 2k ohm
R405	119-0000-05	1/10W 0 ohm JW
R502	119-4721-15	1/10W 4.7k ohm
R503	119-4721-15	1/10W 4.7k ohm
R504	119-4721-15	1/10W 4.7k ohm
R510	119-4721-15	1/10W 4.7k ohm
R511	119-4721-15	1/10W 4.7k ohm
R512	119-4721-15	1/10W 4.7k ohm
R513	119-4721-15	1/10W 4.7k ohm
R514	119-1021-15	1/10W 1k ohm
R515	119-1041-15	1/10W 100k ohm
R516	119-1041-15	1/10W 100k ohm
R517	116-1001-15	1/4W 10 ohm
R520	119-4731-15	1/10W 47k ohm
R521	119-4731-15	1/10W 47k ohm
R522	119-4731-15	1/10W 47k ohm
R524	119-1521-15	1/10W 1.5k ohm
R525	119-1021-15	1/10W 1k ohm
R526	119-3311-15	1/10W 330 ohm
R527	119-4721-15	1/10W 4.7k ohm
R528	032-0140-66	1/10W 220 ohm F
R529	119-1031-15	1/10W 10k ohm
R530	119-1041-15	1/10W 100k ohm
R531	119-1031-15	1/10W 10k ohm
R532	119-4721-15	1/10W 4.7k ohm
R533	119-4721-15	1/10W 4.7k ohm
R534	119-1021-15	1/10W 1k ohm
R535	119-1031-15	1/10W 10k ohm
R536	119-2221-15	1/10W 2.2k ohm
R537	119-1031-15	1/10W 10k ohm
R538	119-1031-15	1/10W 10k ohm
R539	119-1031-15	1/10W 10k ohm
R540	119-4731-15	1/10W 47k ohm

REF No.	PART No.	DESCRIPTION
R541	119-5621-15	1/10W 5.6k ohm
R542	119-2231-15	1/10W 22k ohm
R544	119-4731-15	1/10W 47k ohm
R545	119-6831-15	1/10W 68k ohm
R546	119-1021-15	1/10W 1k ohm
R547	119-1021-15	1/10W 1k ohm
R548	119-1031-15	1/10W 10k ohm
R549	119-3341-15	1/10W 330k ohm
R550	032-0140-22	1/10W 68k ohm F
R551	032-0140-00	1/10W 56k ohm F
R552	117-6821-15	1/8W 6.8k ohm
R553	119-4731-15	1/10W 47k ohm
R554	119-4731-15	1/10W 47k ohm
R555	119-5621-15	1/10W 5.6k ohm
R556	119-1021-15	1/10W 1k ohm
R557	119-4731-15	1/10W 47k ohm
R558	119-1031-15	1/10W 10k ohm
R559	119-1021-15	1/10W 1k ohm
R560	119-1021-15	1/10W 1k ohm
R561	119-1021-15	1/10W 1k ohm
R562	119-1021-15	1/10W 1k ohm
R563	119-0000-05	1/10W 0 ohm JW
R564	119-1021-15	1/10W 1k ohm
R566	119-1021-15	1/10W 1k ohm
R568	119-4731-15	1/10W 47k ohm
R569	119-4731-15	1/10W 47k ohm
R572	119-4731-15	1/10W 47k ohm
R573	119-4731-15	1/10W 47k ohm
R576	119-0000-05	1/10W 0 ohm JW
R701	116-1211-15	1/4W 120 ohm
R702	116-6801-15	1/4W 68 ohm
R703	119-2231-15	1/10W 22k ohm
R704	119-2231-15	1/10W 22k ohm
R711	116-2221-15	1/4W 2.2k ohm
R712	117-1031-15	1/8W 10k ohm
R713	116-2221-15	1/4W 2.2k ohm
R714	119-1031-15	1/10W 10k ohm
R715	119-3321-15	1/10W 3.3k ohm
R726	119-1021-15	1/10W 1k ohm
R731	116-5621-15	1/4W 5.6k ohm
R732	116-4721-15	1/4W 4.7k ohm
R761	032-0092-56	1/8W 22k ohm F
R762	119-1541-15	1/10W 150k ohm
R763	032-0092-51	1/8W 1k ohm F
R764	119-1221-15	1/10W 1.2k ohm
R771	119-0000-05	1/10W 0 ohm JW
R772	119-2231-15	1/10W 22k ohm
R773	116-1021-15	1/4W 1k ohm
R775	119-2231-15	1/10W 22k ohm
R776	119-2231-15	1/10W 22k ohm
R777	117-4731-15	1/8W 47k ohm
R778	119-1031-15	1/10W 10k ohm
R779	116-1821-15	1/4W 1.8k ohm
R780	117-1821-15	1/8W 1.8k ohm
R783	119-2231-15	1/10W 22k ohm
R793	119-0000-05	1/10W 0 ohm JW
R801	119-0000-05	1/10W 0 ohm JW
R802	119-0000-05	1/10W 0 ohm JW
R821	116-1031-15	1/4W 10k ohm
R822	119-3321-15	1/10W 3.3k ohm
R823	119-1031-15	1/10W 10k ohm
R824	116-2221-15	1/4W 2.2k ohm
R825	116-2221-15	1/4W 2.2k ohm
R826	119-8221-15	1/10W 8.2k ohm
R903	119-0000-05	1/10W 0 ohm JW
		(PS-3025K-B)
R904	119-0000-05	1/10W 0 ohm JW
		(PS-3025K-B)
R905	119-0000-05	1/10W 0 ohm JW
		(PS-3025K-B)
R908	119-0000-05	1/10W 0 ohm JW
		(PS-3025K-A)
SUP101	060-0122-20	DSP-141N-S00B

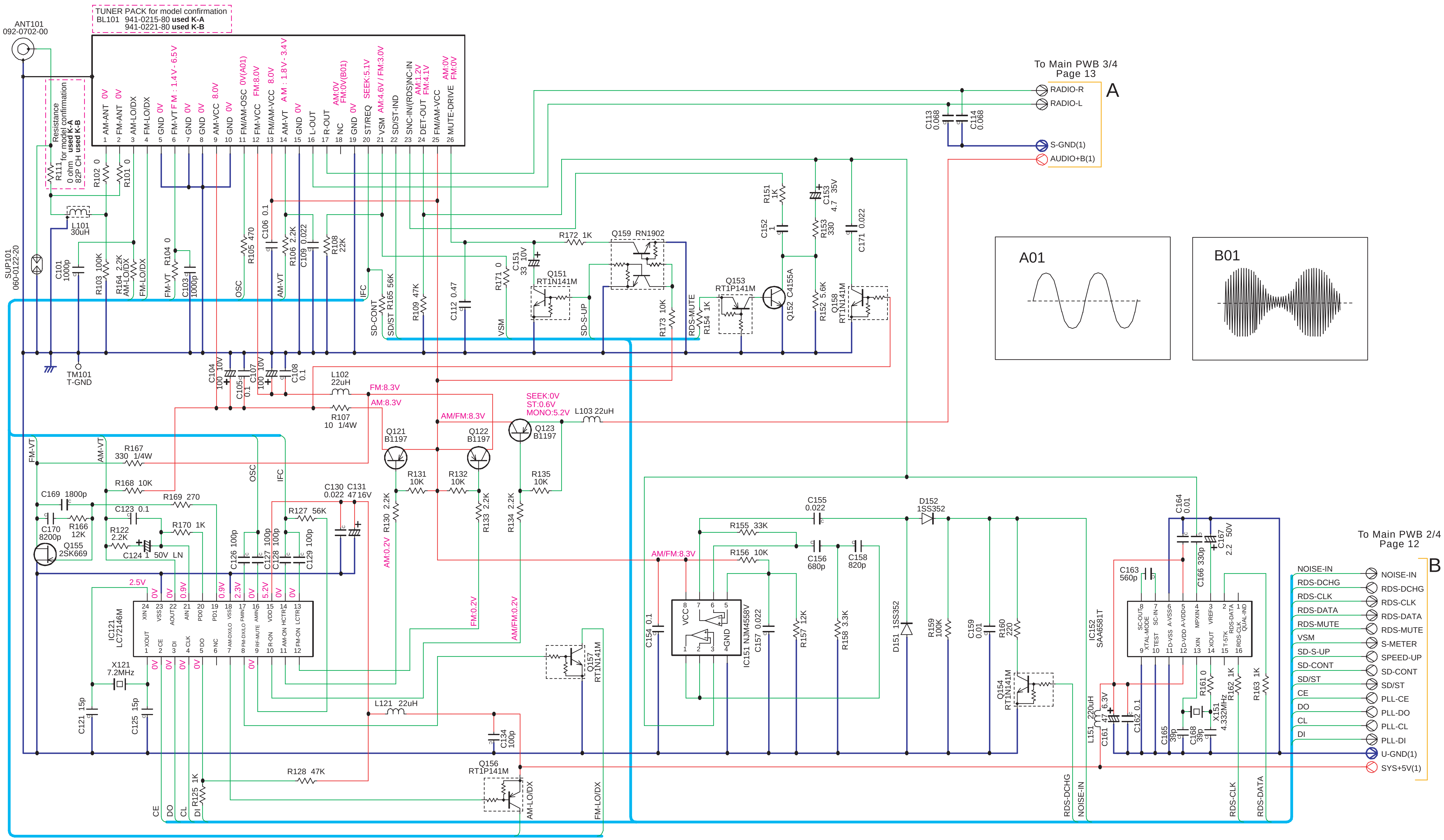
REF No.	PART No.	DESCRIPTION
TH711	002-0318-21	THERMISTOR
TM101	073-0762-90	TERMINAL
TM501	073-0762-90	TERMINAL
TM502	073-0762-90	TERMINAL
TM801	073-0762-90	TERMINAL
TM802	073-0762-90	TERMINAL
X121	061-1066-00	CRYSTAL 7.2MHZ
X151	061-3013-00	CRYSTAL 4.332MHZ
X501	060-1533-90	CSTCE10M0G52-RO
PWB	039-3108-00	PWB(WITHOUT COMPONENT)

Switch PWB section (B2)

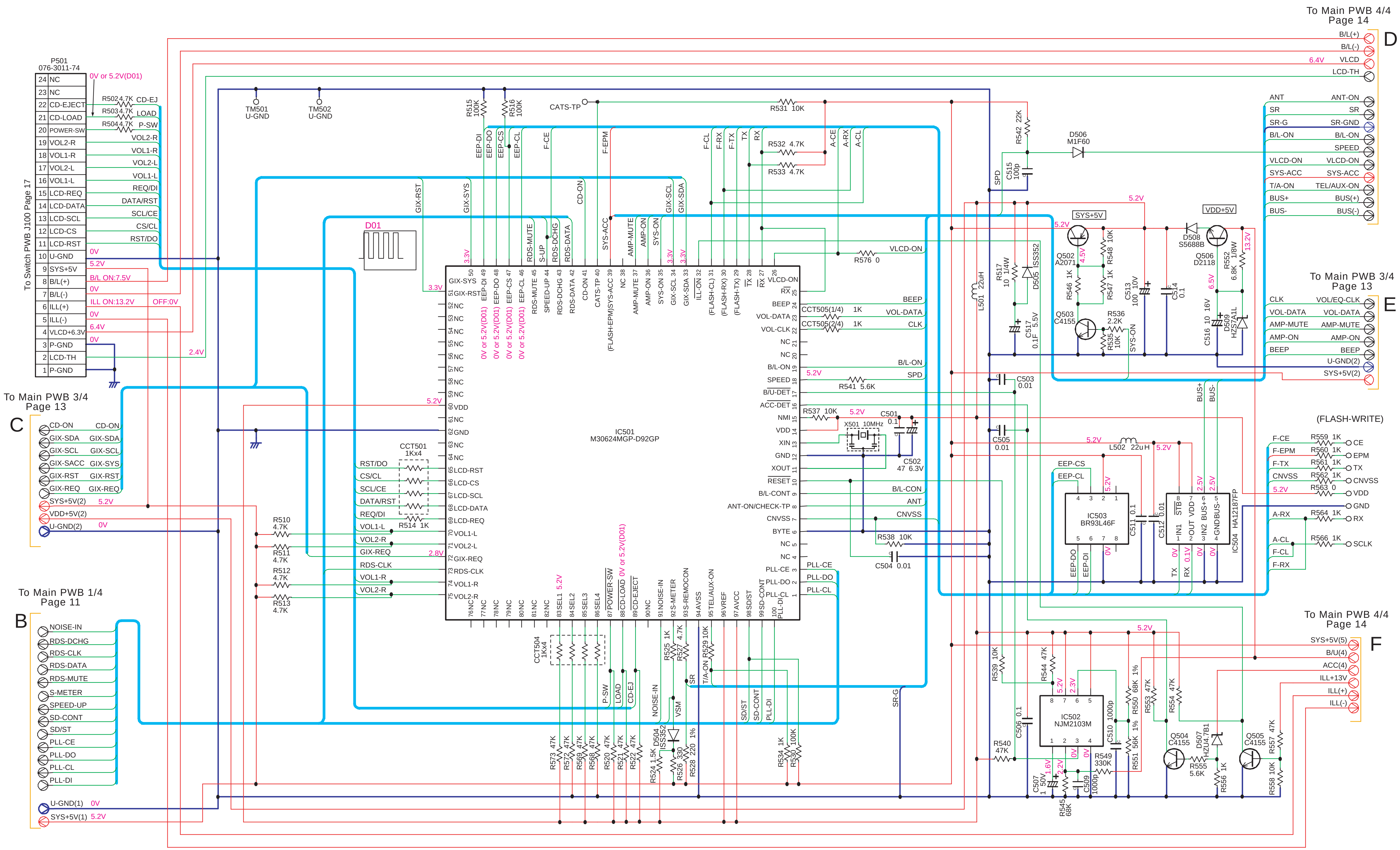
REF No.	PART No.	DESCRIPTION
C100	168-1042-78	16V 0.1uF
C101	168-1042-78	16V 0.1uF
C102	168-1042-78	16V 0.1uF
C103	168-1042-78	16V 0.1uF
C104	168-1042-78	16V 0.1uF
C105	178-1052-78	1uF
D100	001-7048-91	RFR1112H-22 C,D RED
D101	001-7048-91	RFR1112H-22 C,D RED
D102	001-7048-91	RFR1112H-22 C,D RED
D103	001-7048-91	RFR1112H-22 C,D RED
D104	001-7087-90	RBR1112H C,D,E RED
D105	001-7048-91	RFR1112H-22 C,D RED
D106	001-7048-91	RFR1112H-22 C,D RED
D107	001-7048-91	RFR1112H-22 C,D RED
D108	001-7048-91	RFR1112H-22 C,D RED
D113	001-0580-90	1SS352
D114	001-0580-90	1SS352
D115	001-0580-90	1SS352
D116	001-0580-90	1SS352
IC100	051-6084-00	NJU6625FG1-03
J100	074-3013-74	24P
L100	010-3406-66	22uH J
LCD100	379-1363-51	INDICATOR(LCD)
PL100	017-0420-43	14V 40mA RED
PL101	017-0420-43	14V 40mA RED
PL102	017-0420-43	14V 40mA RED
PL104	017-0420-43	14V 40mA RED
PL105	017-0420-43	14V 40mA RED
PL106	017-0420-43	14V 40mA RED
PL107	017-0420-43	14V 40mA RED
PL108	017-0420-43	14V 40mA RED
PL109	017-0420-43	14V 40mA RED
PL110	017-0420-43	14V 40mA RED
PL111	017-0420-43	14V 40mA RED
R100	119-1521-15	1/10W 1.5k ohm
R101	119-1221-15	1/10W 1.2k ohm
R102	119-1221-15	1/10W 1.2k ohm
R103	119-1521-15	1/10W 1.5k ohm
R104	119-1221-15	1/10W 1.2k ohm
R105	119-1221-15	1/10W 1.2k ohm
R106	119-1521-15	1/10W 1.5k ohm
R107	119-1221-15	1/10W 1.2k ohm
R108	119-1221-15	1/10W 1.2k ohm
R109	119-1521-15	1/10W 1.5k ohm
R110	119-1221-15	1/10W 1.2k ohm
R111	119-1221-15	1/10W 1.2k ohm
R112	119-2221-15	1/10W 2.2k ohm
R113	119-2221-15	1/10W 2.2k ohm
R114	119-1821-15	1/10W 1.8k ohm
R116	119-0000-05	1/10W 0 ohm JW
R117	119-0000-05	1/10W 0 ohm JW
R121	119-4341-15	1/10W 430k ohm
R122	119-0000-05	1/10W 0 ohm JW
R123	119-0000-05	1/10W 0 ohm JW
R125	119-0000-05	1/10W 0 ohm JW
R126	119-0000-05	1/10W 0 ohm JW
R128	119-1021-15	1/10W 1k ohm
R129	119-1021-15	1/10W 1k ohm
R131	119-0000-05	1/10W 0 ohm JW
R132	119-0000-05	1/10W 0 ohm JW
R140	119-0000-05	1/10W 0 ohm JW
R200	119-1841-15	1/10W 180k ohm
R201	119-1841-15	1/10W 180k ohm
R202	119-1841-15	1/10W 180k ohm
R203	119-1841-15	1/10W 180k ohm
TH100	002-0306-90	SC20-3J153
TM100	073-0778-90	TERMINAL
VR100	016-0014-12	VR W/SHAFT
VR101	016-0014-12	VR W/SHAFT
PWB	039-3035-00	PWB(WITHOUT COMPONENT)

CIRCUIT DIAGRAM

Main PWB(B1) section 1/4

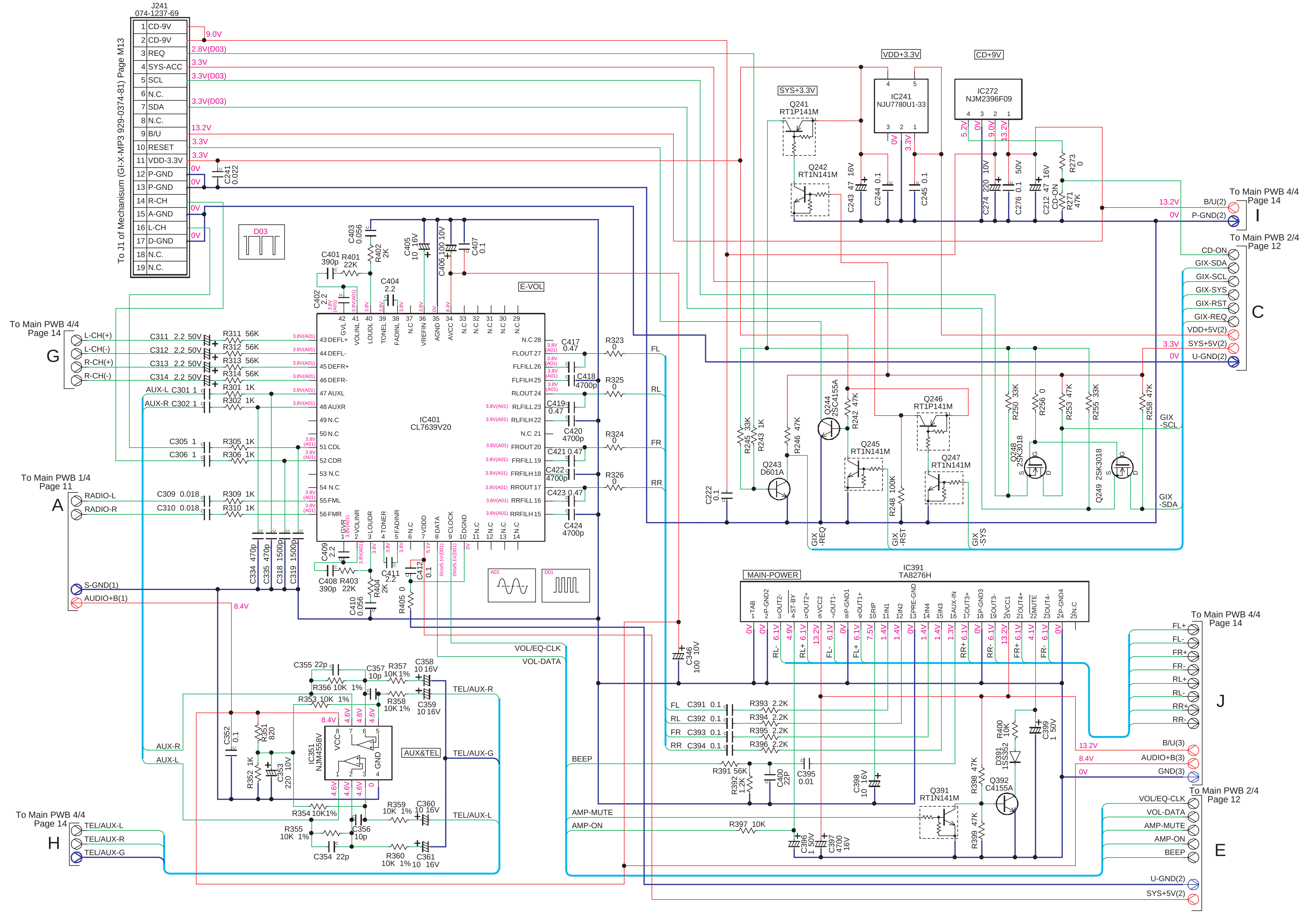


PS-3025K-A,B

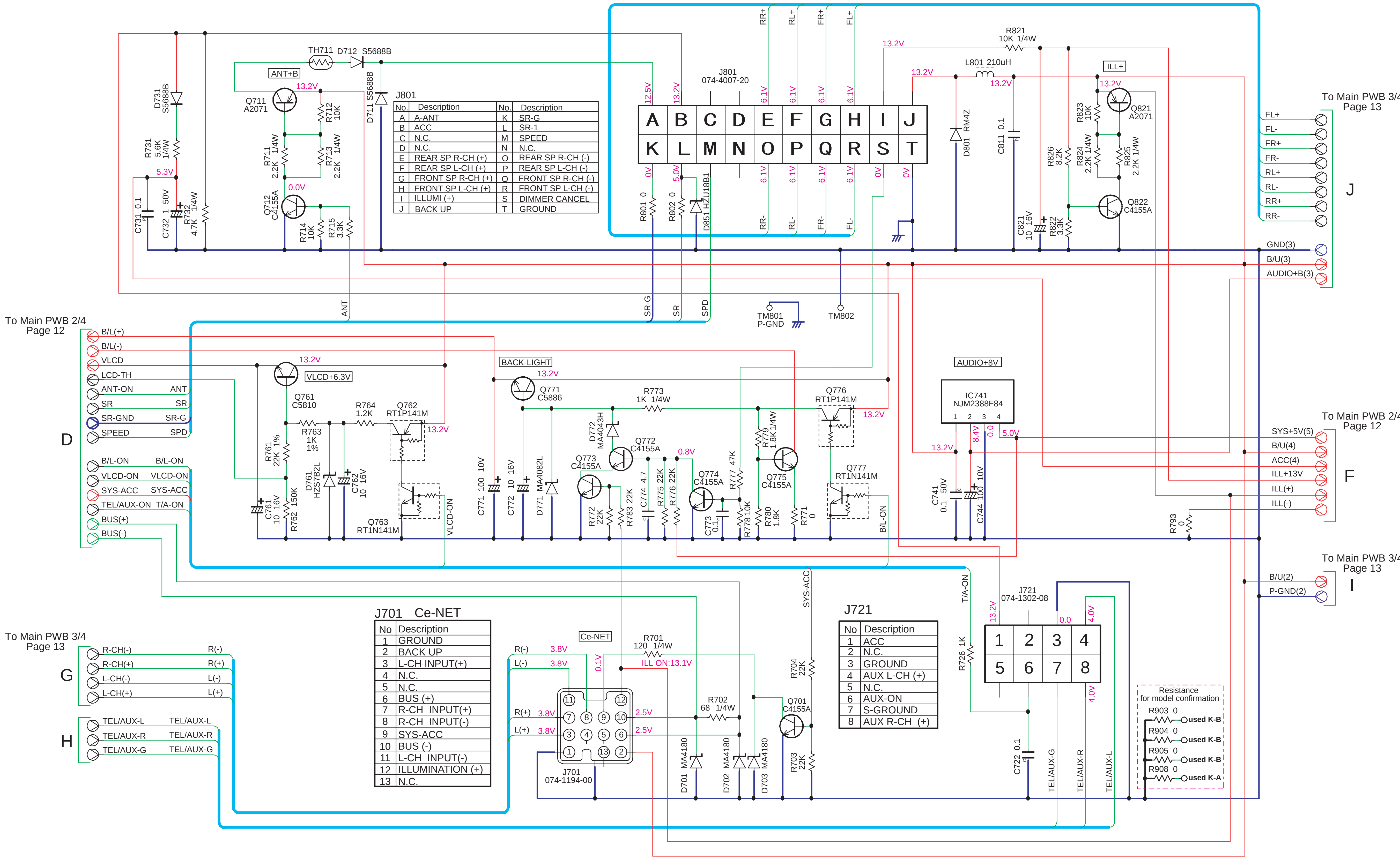

To Main PWB 4/4 Page 14
D
To Main PWB 3/4 Page 13
E
To Main PWB 3/4 Page 13
C
To Main PWB 1/4 Page 11
B
To Main PWB 4/4 Page 14
F
To Switch PWB J100 Page 17
P501 076-3011-74
IC501 M30624MGP-D92GP
IC502 NJM2103M
IC503 BR93L46F
IC504 HA12187FP
(FLASH-WRITE)
D01

PS-3025K-A,B

Main PWB(B1) section 3/4



PS-3025K-A,B



J801

No.	Description	No.	Description
A	A-ANT	K	SR-G
B	ACC	L	SR-1
C	N.C.	M	SPEED
D	N.C.	N	N.C.
E	REAR SP R-CH (+)	O	REAR SP R-CH (-)
F	REAR SP L-CH (+)	P	REAR SP L-CH (-)
G	FRONT SP R-CH (+)	Q	FRONT SP R-CH (-)
H	FRONT SP L-CH (+)	R	FRONT SP L-CH (-)
I	ILLUMI (+)	S	DIMMER CANCEL
J	BACK UP	T	GROUND

J701 Ce-NET

No	Description
1	GROUND
2	BACK UP
3	L-CH INPUT(+)
4	N.C.
5	N.C.
6	BUS (+)
7	R-CH INPUT(+)
8	R-CH INPUT(-)
9	SYS-ACC
10	BUS (-)
11	L-CH INPUT(-)
12	ILLUMINATION (+)
13	N.C.

J721

No	Description
1	ACC
2	N.C.
3	GROUND
4	AUX L-CH (+)
5	N.C.
6	AUX-ON
7	S-GROUND
8	AUX R-CH (+)

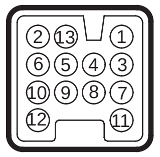
PRINTED WIRING BOARD

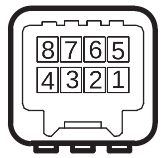
Main PWB (B1) section 1/2

J701

No	Description
1	GROUND
2	BACK UP
3	L-CH INPUT(+)
4	N.C.
5	N.C.
6	BUS (+)
7	R-CH INPUT(+)
8	R-CH INPUT(-)
9	SYS-ACC
10	BUS (-)
11	L-CH INPUT(-)
12	ILLUMINATION (+)
13	N.C.

Ce-NET



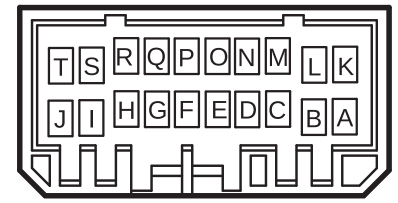


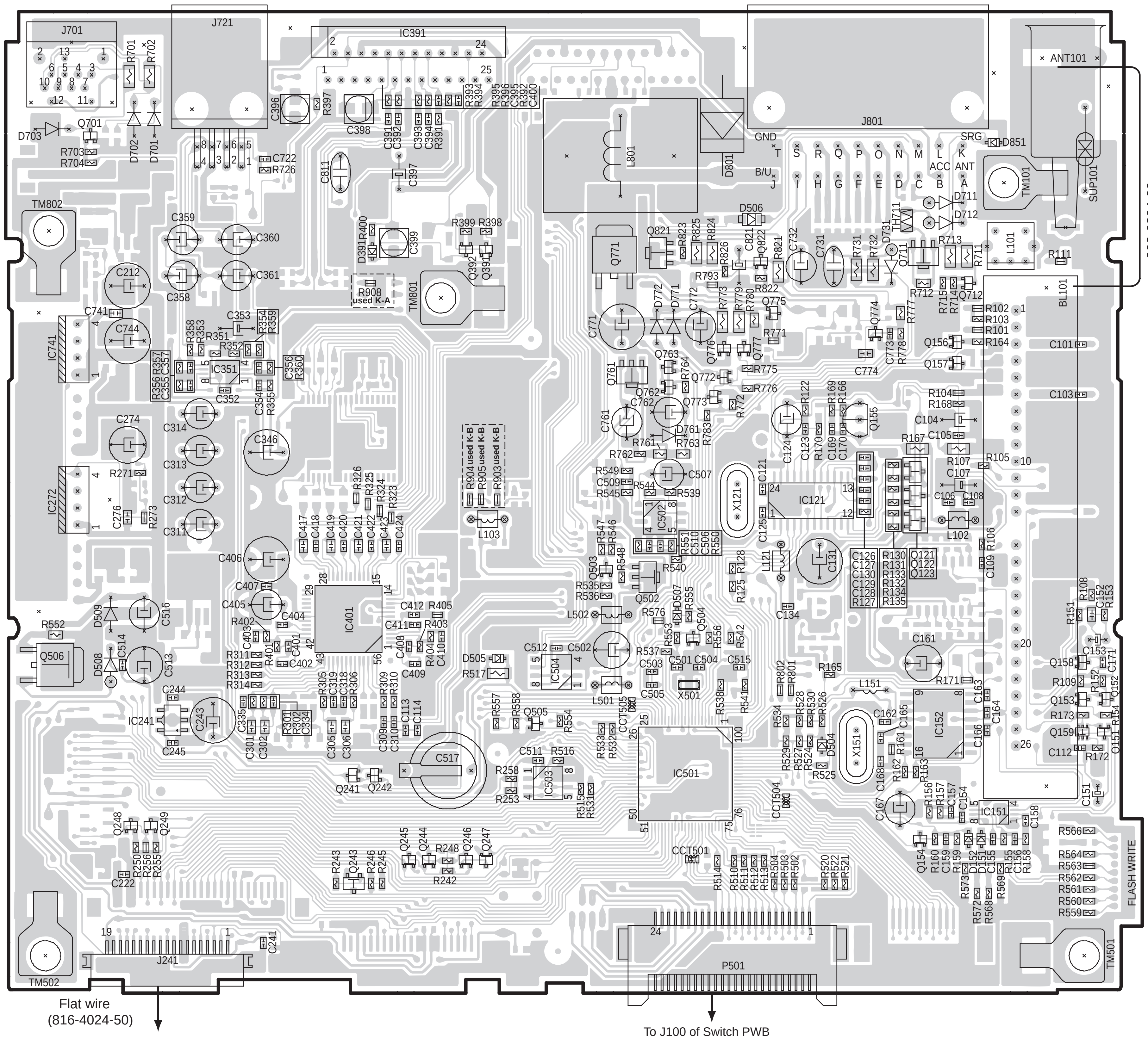
J721

No	Description
1	ACC
2	N.C.
3	GROUND
4	AUX-IN L-CH (+)
5	N.C.
6	AUX-ON
7	S-GROUND
8	AUX-IN R-CH (+)

J801

No	Description	No	Description
A	A-ANT	K	SR-G
B	ACC	L	SR-1
C	N.C	M	SPEED PULSE
D	N.C	N	N.C
E	REAR SP R-CH (+)	O	REAR SP R-CH (-)
F	REAR SP L-CH (+)	P	REAR SP L-CH (-)
G	FRONT SP R-CH (+)	Q	FRONT SP R-CH (-)
H	FRONT SP L-CH (+)	R	FRONT SP L-CH (-)
I	ILLUMINATION (+)	S	ILLUMINATION (-)
J	BACK UP	T	GROUND





808-0204-00
VINYL-COAT-WIRE

Flat wire
(816-4024-50)

To J1 of CD Mechnism Page M14

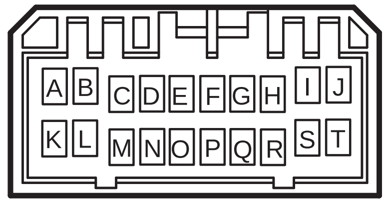
To J100 of Switch PWB
Page 18

IC	Q
IC391	
	Q701
	Q771 Q821
	Q392 Q391 Q822 Q711
	Q712
	Q775
	Q774 Q156
	Q776 Q777 Q157
IC351 IC741	Q761 Q763 Q772
	Q762 Q773
	Q155
IC202	
	Q121
IC121	Q122
IC272 IC502	Q123
	Q503 Q502
IC271	
IC401	
	Q504
IC504	Q506 Q158
	Q153 Q152
IC152 IC241	Q505 Q159 Q151
IC501 IC503	Q241 Q242
IC151	
	Q248 Q249
	Q154
	Q245 Q244 Q246 Q247
	Q243

Caution:
COMPONENT SIDE: Parts on the component side seen from the component side are indicated.

COMPONENT SIDE

Main PWB(B1) section 2/2

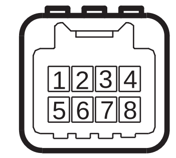


J801

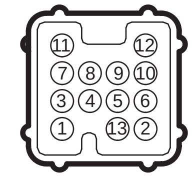
No	Description	No	Description
A	A-ANT	K	SR-G
B	ACC	L	SR-1
C	N.C	M	SPEED PULSE
D	N.C	N	N.C
E	REAR SP R-CH (+)	O	REAR SP R-CH (-)
F	REAR SP L-CH (+)	P	REAR SP L-CH (-)
G	FRONT SP R-CH (+)	Q	FRONT SP R-CH (-)
H	FRONT SP L-CH (+)	R	FRONT SP L-CH (-)
I	ILLUMINATION (+)	S	ILLUMINATION (-)
J	BACK UP	T	GROUND

J721

No	Description
1	ACC
2	N.C.
3	GROUND
4	AUX L-CH (+)
5	N.C.
6	AUX-ON
7	S-GROUND
8	AUX R-CH (+)

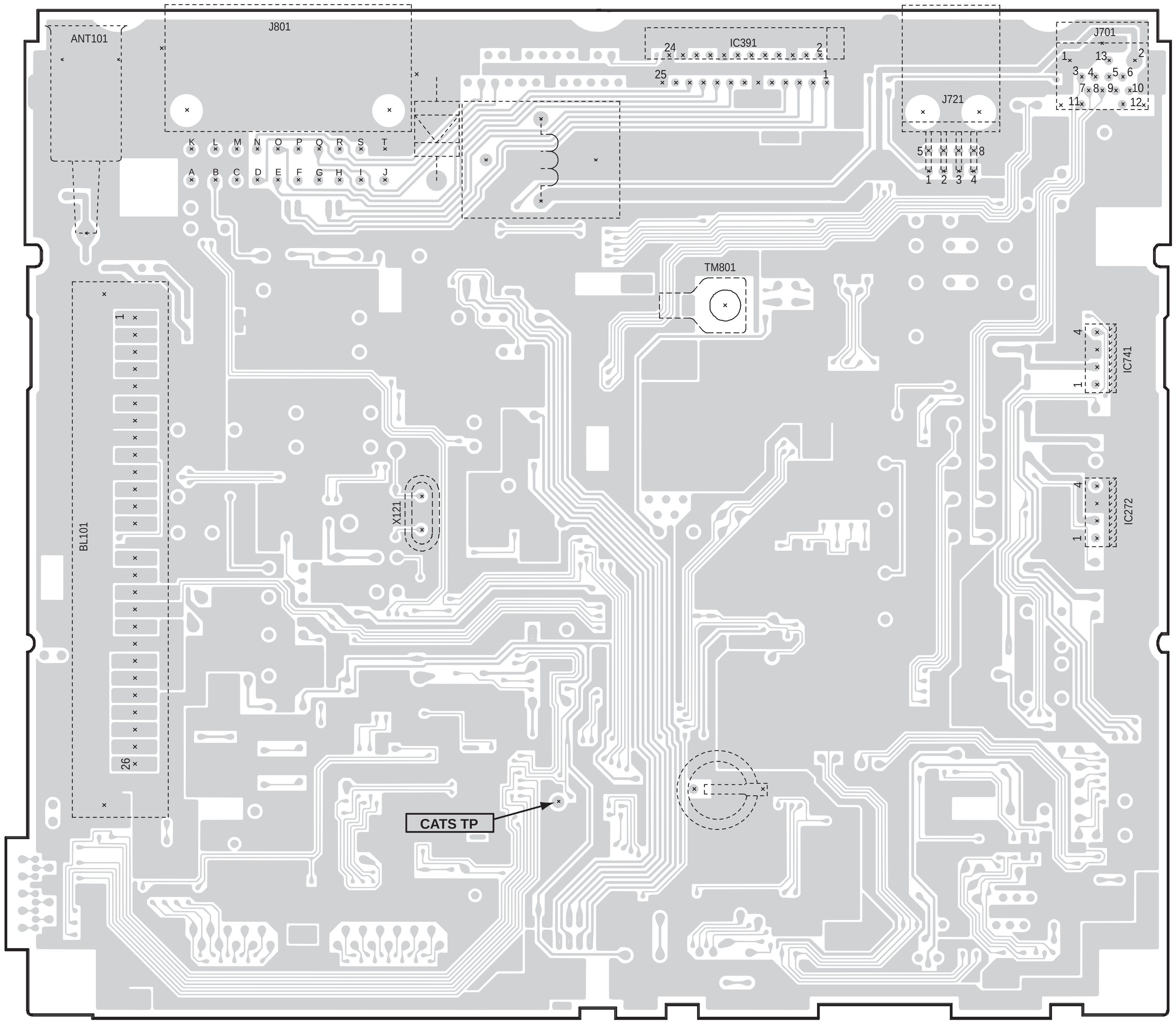


Ce-NET



J701 13P (Ce-NET)

No	Description
1	GROUND
2	BACK UP
3	L-CH INPUT(+)
4	N.C.
5	N.C.
6	BUS (+)
7	R-CH INPUT(+)
8	R-CH INPUT(-)
9	SYS-ACC
10	BUS (-)
11	L-CH INPUT(-)
12	ILLUMINATION (+)
13	N.C.

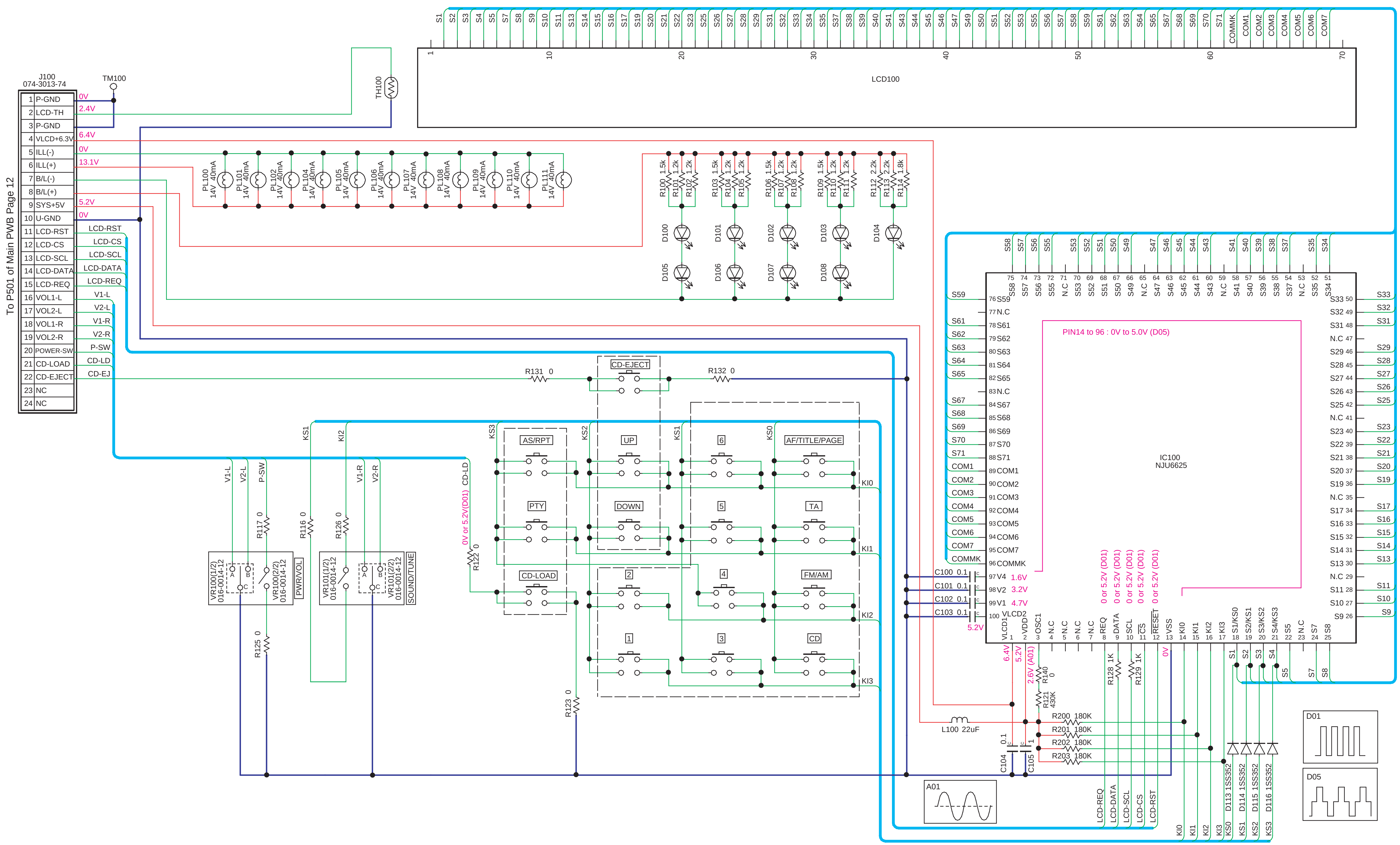


SOLDER SIDE

Caution:
SOLDER SIDE: Parts on the solder side seen from the solder side are indicated.

CIRCUIT DIAGRAM

Switch PWB(B2) section

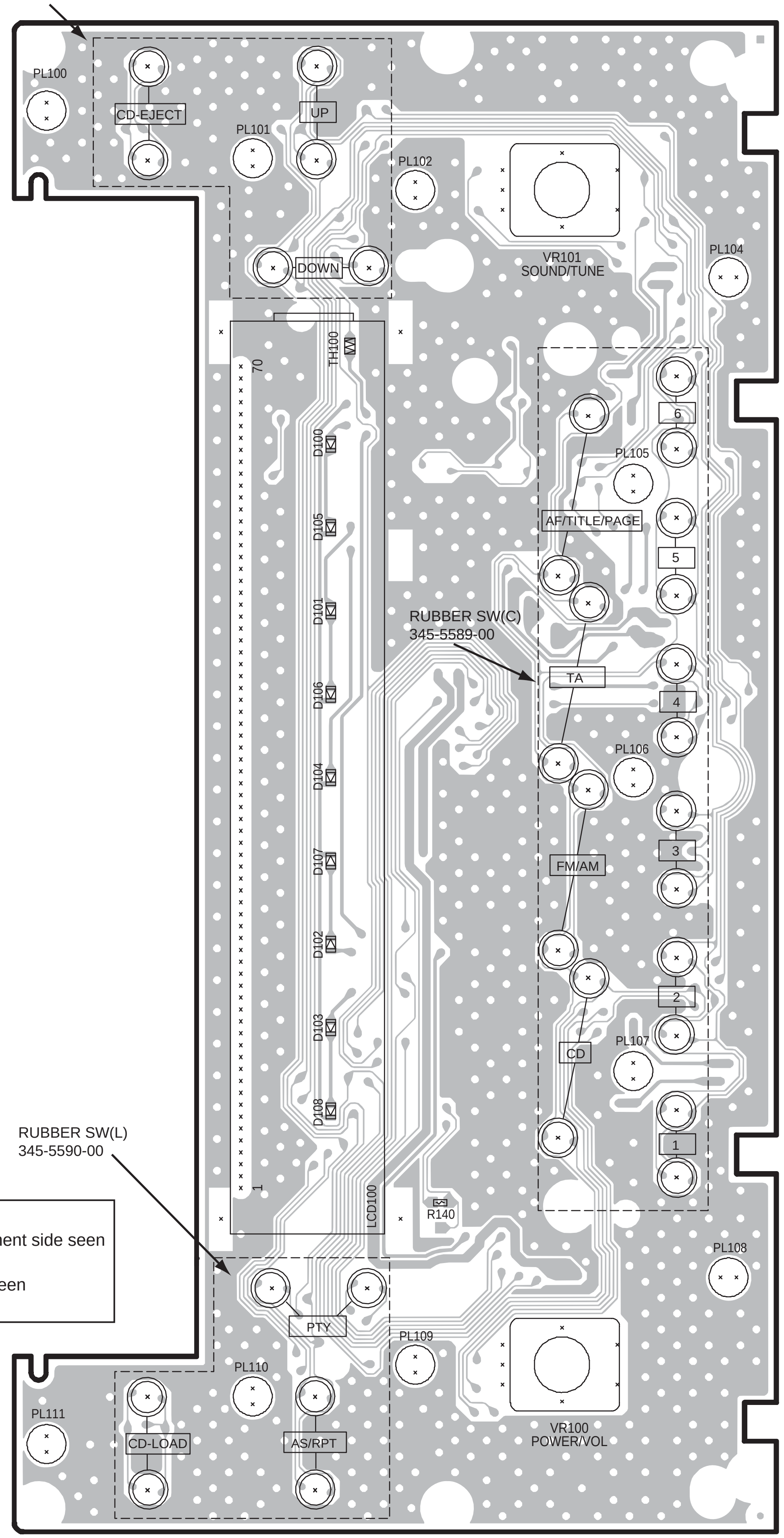


PS-3025K-A,B

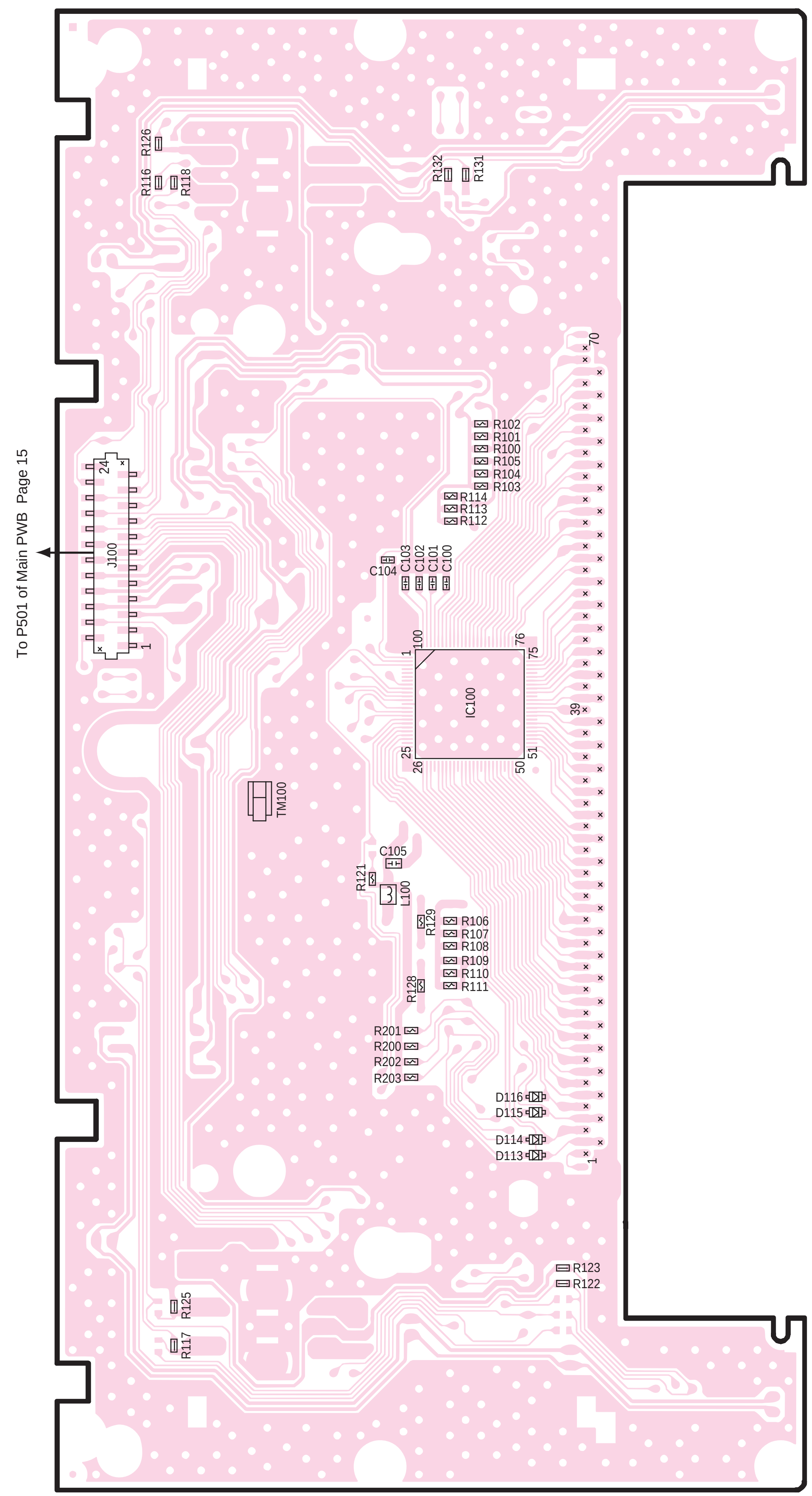
PRINTED WIRING BOARD

Switch PWB (B2) section

COMPONENT SIDE



SOLDER SIDE

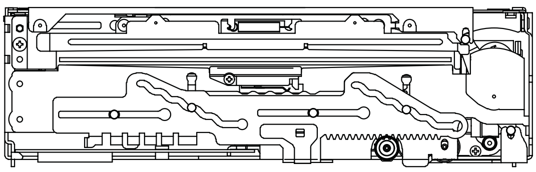


Caution:
COMPONENT SIDE: Parts on the component side seen from the component side are indicated.
SOLDER SIDE: Parts on the solder side seen from the solder side are indicated.

Clarion Co., Ltd.
7-2, Shintoshin, Chuo-ku, Saitama-shi, Saitama 330-0081 Japan
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Service Manual



In Dash 6disc CD Auto Changer Mechanism(GI-X)

Model 929-0374-81

EXPLANATION OF IC

052-5070-20 TMP91CY22IFG-6NH7 Mechanism Controller

Terminal Description

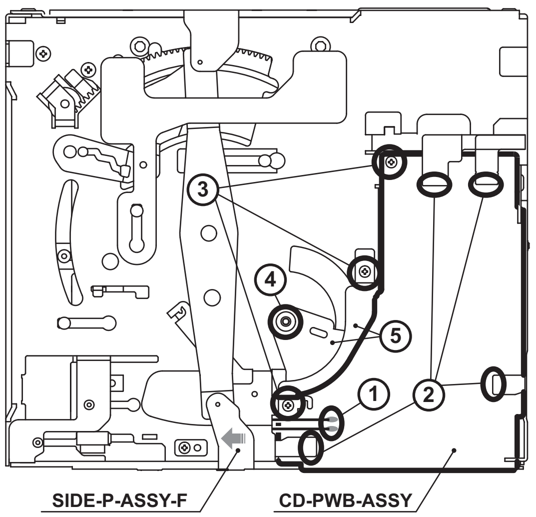
pin 1:	Vref L	-	Reference voltage.
pin 2:	A VSS	-	Negative voltage supply for analog section.
pin 3:	A VCC	-	Positive voltage supply for the internal analog section.
pin 4:	LO CW	O	Loading motor control signal output.
pin 5:	LO CCW	O	Loading motor control signal output.
pin 6:	NC	O	Not in use.
pin 7:	De-emphasis	IN	De-emphasis ON command input.
pin 8:	E-EJ	IN	Emergency Eject input.
pin 9:	P ON 1	O	Power ON signal output.
pin 10:	NU	-	Not in use.
pin 11:	P ON 3	O	Power ON signal output.
pin 12:	NU	-	Not in use.
pin 13:	NU	-	Not in use.
pin 14:	NU	-	Not in use.
pin 15:	NU	-	Not in use.
pin 16:	NU	-	Not in use.
pin 17:	NU	-	Not in use.
pin 18:	DSP SO	O	Serial data output to the DSP IC.
pin 19:	DSP SI	IN	Serial data input from the DSP IC.
pin 20:	DSP SCK	O	The clock pulse output to DSP IC.
pin 21:	FL TX	O	The serial data output for flash memory.
pin 22:	FL RX	IN	The serial data input for flash memory.
pin 23:	SW 9V	O	9V power supply control.
pin 24:	PULL UP	IN	PULL UP
pin 25:	VCC	-	Positive voltage supply.
pin 26:	X out	O	Crystal connection.
pin 27:	VSS	-	Negative voltage supply.
pin 28:	X in	IN	Crystal connection.
pin 29:	PULL UP	IN	PULL UP
pin 30:	RESET	IN	Reset signal input.
pin 31:	TIME	O	For Time base.
pin 32:	NU	-	Not in use.
pin 33:	NC	O	Not in use.
pin 34:	NC	O	Not in use.
pin 35:	BU DET	IN	Backup detection signal input.
pin 36:	SW 5	IN	The switch signal input.
pin 37:	SBSY	IN	Sub code block synchronous signal detection input.
pin 38:	PON 2	O	Power ON signal output.
pin 39:	MODE CW	O	Mode motor control.
pin 40:	MODE CCW	O	Mode motor control.
pin 41:	U/D CW	O	Holder control.
pin 42:	U/D CCW	O	Holder control.
pin 43:	NC	O	Not in use.
pin 44:	DR MUTE	O	Drive mute signal output to the CD IC.
pin 45:	SRAM STNDB	O	SRAM standby signal output.
pin 46:	DSP RESET	O	Reset signal output to the DSP IC.
pin 47:	DSP CS	O	Chip select signal output to the DSP.
pin 48:	DSP LAT	O	The latch pulse output to DSP IC.
pin 49:	DSP ACK	IN	DSP acknowledge.
pin 50:	LIMIT	IN	Inside limit switch signal input.
pin 51:	EEP CS	O	The chip select output to EEP-ROM.
pin 52:	EEP SK	O	The clock pulse output to the EEP-ROM.
pin 53:	EEP DI	IN	The serial data input from the EEP-ROM.
pin 54:	EEP DO	O	The serial data output to the EEP-ROM.
pin 55:	HSSW	IN	It is used at the jitter measurement (the speed is 2X, shock proof is through).
pin 56:	HSSW 2	IN	It is used at the jitter measurement (the speed is 1X, shock proof is through).
pin 57:	DSP REQ	IN	DSP request input.
pin 58:	DSP STNDB	O	DSP standby output.
pin 59:	NU	-	Not in use.
pin 60:	NU	-	Not in use.
pin 61:	BUC CLOCK	O	CD IC clock pulse output.
pin 62:	VSS	-	Negative voltage supply.
pin 63:	NMI	IN	Connect to VDD via a resistor.
pin 64:	VCC	-	Positive voltage supply.
pin 65:	BUS 0	I/O	CD IC Data input / output.
pin 66:	BUS 1	I/O	CD IC Data input / output.
pin 67:	BUS 2	I/O	CD IC Data input / output.
pin 68:	BUS 3	I/O	CD IC Data input / output.
pin 69:	CCE	O	The chip enable signal output.
pin 70:	CD RESET	O	The reset pulse output to the CD IC.
pin 71:	T DATA	O	The display data output for the test mode indication.
pin 72:	T CLK	O	The test clock output.
pin 73:	T CLR	O	The clear signal output for the test mode indication.
pin 74:	NU	-	Not in use.
pin 75:	NU	-	Not in use.
pin 76:	NU	-	Not in use.
pin 77:	NU	-	Not in use.
pin 78:	FL BOOT	IN	Flash memory control.
pin 79:	TEST 1	IN	For the test.
pin 80:	TEST 2	IN	For the test.

Pin	Name	I/O	Function
pin 81:	TEST 3	:IN:	For the test.
pin 82:	TEST 4	:IN:	For the test.
pin 83:	REQ O	: O :	Transmit request signal output.
pin 84:	I2C SDA	:I/O:	I2C serial data input/output.
pin 85:	I2C SCL	:I/O:	I2C serial clock input/output.
pin 86:	ACC DET	:IN:	ACC detection signal input.
pin 87:	NU	: - :	Not in use.
pin 88:	SW 1	:IN:	The switch signal input.
pin 89:	VCC	: - :	Positive voltage supply.
pin 90:	SW 2	:IN:	The switch signal input.
pin 91:	VSS	: - :	Negative voltage supply.
pin 92:	SW 3	:IN:	The switch signal input.
pin 93:	SW 4	:IN:	The switch signal input.
pin 94:	NU	: - :	Not in use.
pin 95:	PT 1	:IN:	The photo sensor signal input.
pin 96:	PT 2	:IN:	The photo sensor signal input.
pin 97:	PT 3	:IN:	The photo sensor signal input.
pin 98:	PT 4	:IN:	The photo sensor signal input.
pin 99:	PT 5	:IN:	The photo sensor signal input.
pin100:	Vref H	: - :	Reference voltage.

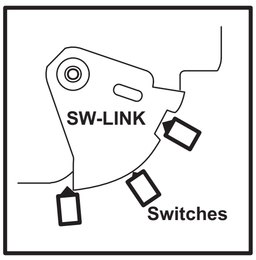
DISASSEMBLY

How to remove "CD-PWB-ASSY"

1. Add +5V to "U+" terminal of UD-MOTOR-ASSY,then SIDE-P-ASSY-F moves outside of CD-PWB.
2. Release four FPCs.
3. Remove three screws
4. Remove the washer.
5. Remove SW-H-PLATE and SW-LINK, and remove CD-PWB-ASSY.

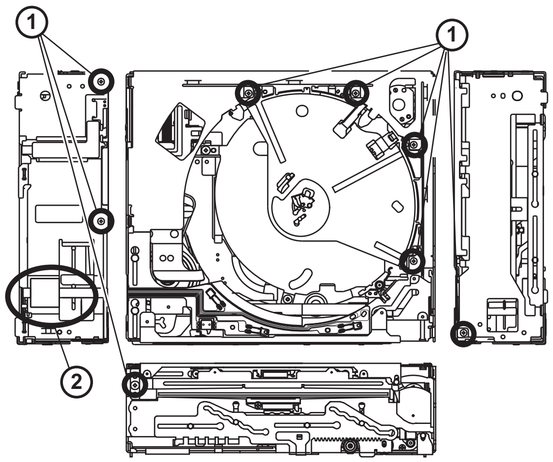


* When assembling, match SW LINK to three switches.

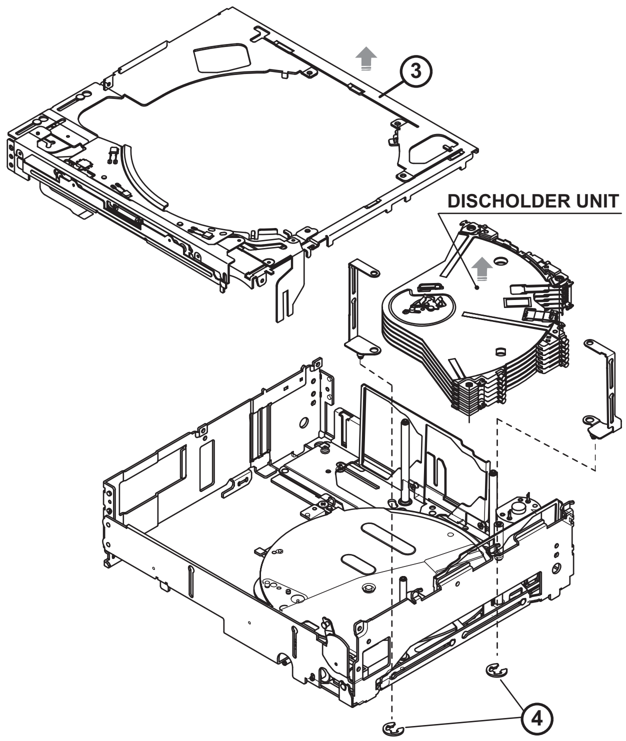


How to remove "DISCHOLDER UNIT"

1. Remove eight screws.
2. Remove the FPC.

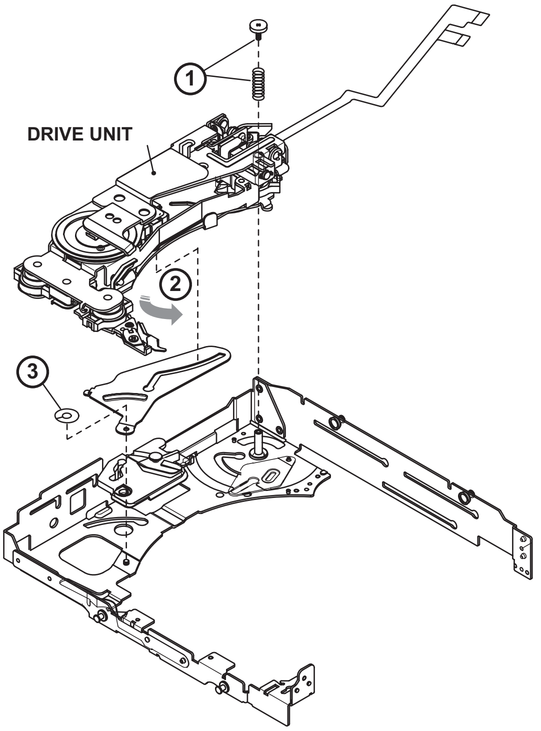


3. Remove UPPER UNIT ASSY.
4. Remove two C-RINGs, and remove DISCHOLDER UNIT.



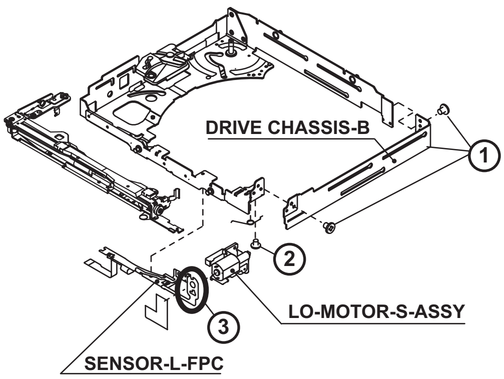
How to remove "DRIVE UNIT"

1. Remove the screw and DRIVE SPRING-A.
2. Rotate DRIVE UNIT internally.
3. Remove the washer, and remove DRIVE UNIT.



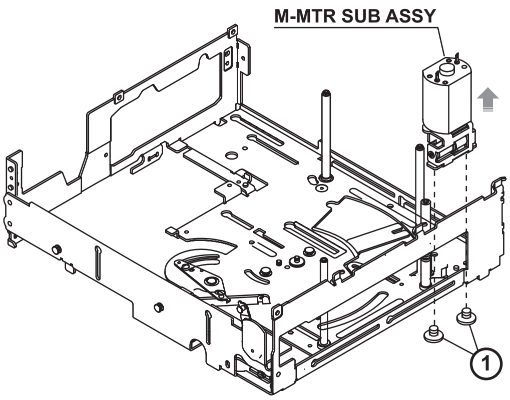
How to remove "LO-MOTOR-S-ASSY"

1. Remove two screws and DRIVE CHASSIS-B.
2. Remove the screw of the bottom side.
3. Remove the solder of SENSOR-L-FPC, and remove LO-MOTOR-S-ASSY.



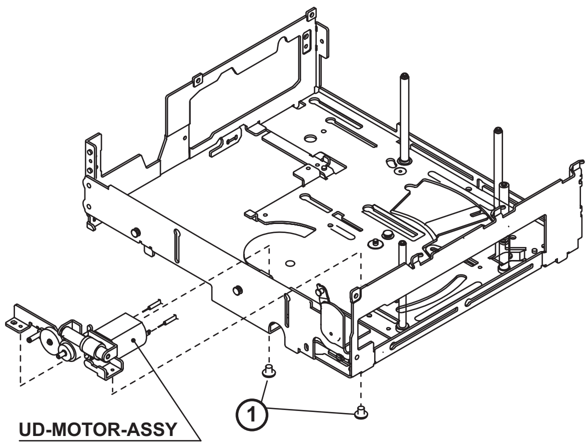
How to remove "M-MTR SUB ASSY"

1. Remove two screws, and remove M-MTR SUB ASSY.

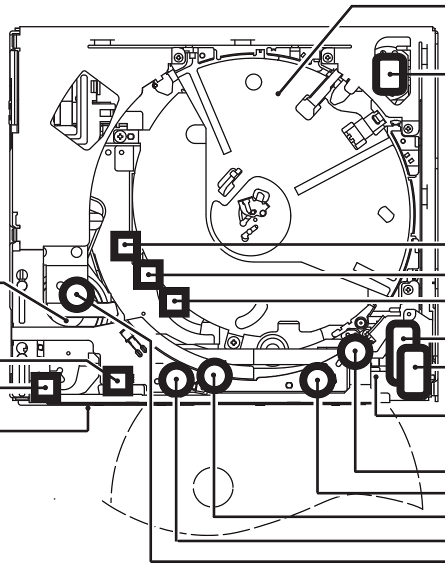


How to remove "UD-MOTOR-ASSY"

1. Remove the screw of the bottom side, and remove UD-MOTOR-ASSY.



OPERATION



Function of Mechanism

[DISC HOLDER]
Six holders.
(Related motor:UP/DW-Motor)

[DRIVE UNIT]
Chukking of a play disc.
(Related Motor:Mode motor)

[LOADING ROLLER]
Disk is stored/ejected by rotation.
(Related Motor:Laoding motor)

[SHUTTER]
Shutter at disc insertion.
(Related Motor:Mode Motor)

Function of Motors

[MOT1 LOADING MOTOR]
Rotation of loading roller.
(Related Sensor:PT1,2,3,Q1)

[MOT2 MODE MOTOR]
Rotation of mode plate.
Chukking disc.
Opening/closing holder.
Movement of loading/ejecting roller.
Opening/closing shutter.
(Related Sensor:S1,2,3)

[MOT3 UP/DW-MOTOR]
Going up and down of disc holder.
Selection of disc holder.
(Related Sensor:S4,IC10)

Function of Switches

[S1,2,3]
Detect a home position of mode plate.
Detect mode plate position by combination of on and off.

[S4]
Detection of initial position of holder.
Initial position:S4-ON,IC10-bright.

[S5]
Opening/closing detection of shutter.
OFF:Close, ON:Open

Function of Photo sensors

[PT1]
Detection of start loading and passing of disc.
Bright:no DISC, Dark:DISC

[PT2]
Detection of finish eject and passing of disc.
Bright:no DISC, Dark:DISC

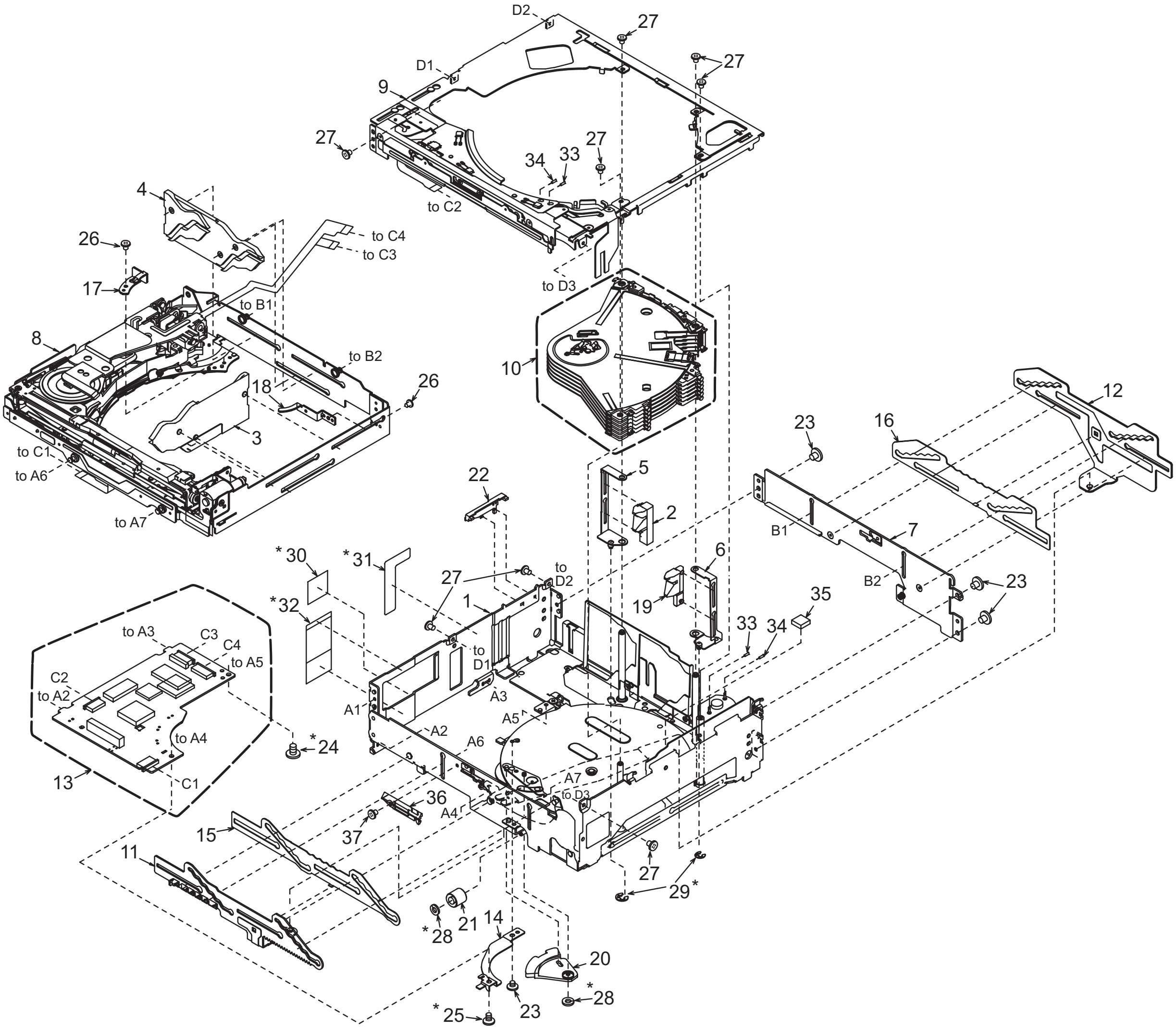
[PT3]
Detection of store and passing of disc.
Bright:no DISC, Dark:DISC

[Q1]
Detection of passing of disc.
Bright:no DISC, Dark:DISC

[IC10]
Detection of holder position

EXPLODED VIEW/PARTS LIST

Main section

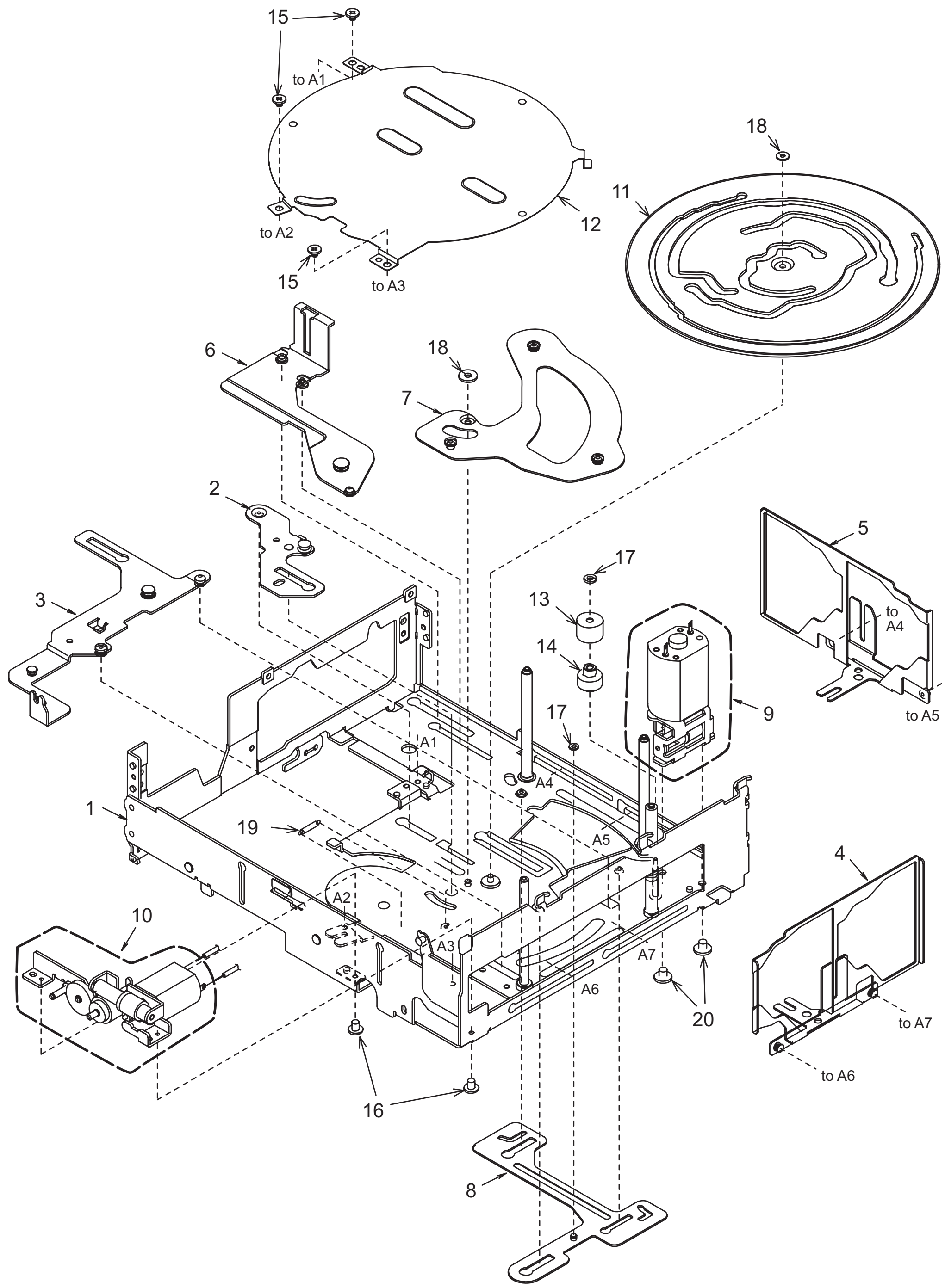


* Do not reuse the following parts.
(No.24,25,28,29,30,31,32)

NO.	PART NO.	DESCRIPTION	Q'TY
1	966-1864-20	LOWER UNIT ASSY	1
2	966-0667-21	DISC STP-ASSY L	1
3	HBS-586-100	DH-SEL-ASSY S	1
4	HBS-587-100	DH-SEL-ASSY R	1
5	966-0670-22	DS-SP-ASSY L	1
6	966-0671-23	DS-SP-ASSY R	1
7	966-0672-21	REAR-P-ASSY	1
8	966-1753-22	S-DRIVE-CH UNIT	1
9	966-1863-20	UPPER UNIT ASSY	1
10	HBS-566-300	DISC HOLDER UNIT	1
11	966-1771-21	SLIDE-P-ASSY F	1
12	966-0709-21	SLIDE-P-ASSY R	1
13	HBS-599-100	CD-PWB-ASSY	1
14	620-1640-20	SW-H-PLATE	1
15	620-1778-20	GAP PLATE F	1
16	620-1662-21	GAP PLATE R	1
17	620-1685-21	DS-PLATE L	1
18	620-1686-20	DS-PLATE R	1
19	621-1634-23	DISC STOPPER R	1

NO.	PART NO.	DESCRIPTION	Q'TY
20	621-1636-24	SW LINK	1
21	621-1765-20	UD-GEAR-D	1
22	621-1715-20	FPC-STOPPER	1
23	716-1850-01	SCREW(M2.0x2.0)	4
24	716-1850-02	SCREW(M2.0x2.0)	1
25	716-1851-02	SCREW(M2.0x3.0)	1
26	716-3450-00	SCREW(M1.7x2.0)	2
27	716-3451-01	SCREW(M1.7x2.5)	8
28	746-0761-00	WASHER	2
29	744-0045-01	C-RING	2
30	347-7271-00	FPC SHEET	1
31	347-7275-00	PROTECT SHEET	1
32	347-7276-00	FPC-SHEET C	1
33	800-4921-60	VINYL-COAT-WIRE	1
34	802-4921-60	VINYL-COAT-WIRE	1
35	345-5824-00	RUBBER PART	1
36	621-1763-20	LOADING GUIDE B	1
37	716-1859-01	IT SCREW(M1.7 x 2) 1	

Lower unit assy section : 966-1864-20



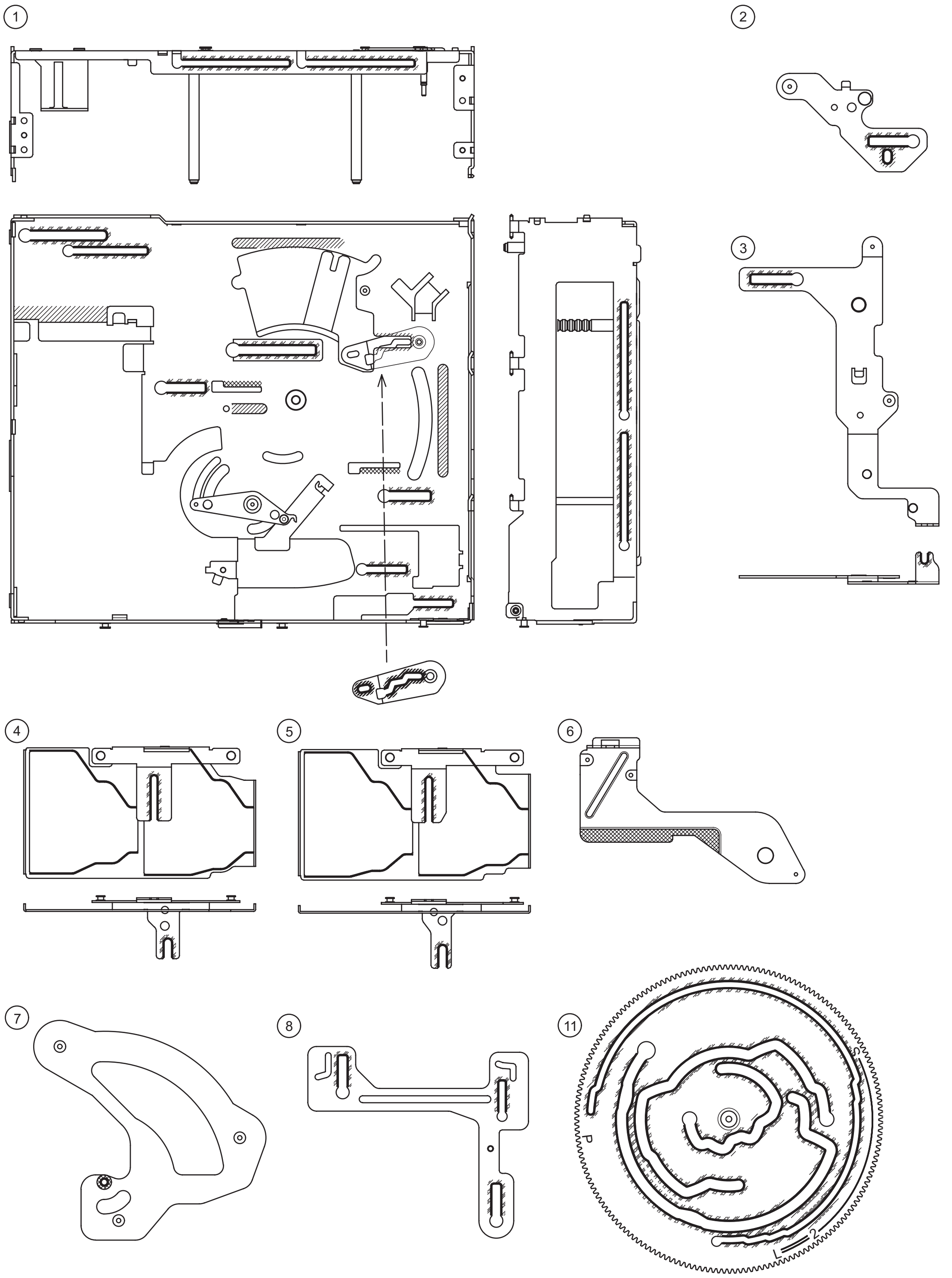
NO.	PART NO.	DESCRIPTION	Q'TY
1	966-1757-25	LOWER-C-ASSY	1
2	966-0658-22	DH-SP-ASSY A	1
3	966-1758-20	DS-SP-ASSY A	1
4	966-0660-22	DH-SP-ASSY S	1
5	966-0661-23	DH-SP-ASSY R	1
6	966-0677-23	D-SHT PL-B-ASSY	1
7	966-0659-22	DH-SP-ASSY B	1
8	966-0666-22	DS-SP-ASSY B	1
9	HBS-546-100	M-MTR SUB ASSY	1
10	HBS-568-100	UD-MOTOR-ASSY	1

NO.	PART NO.	DESCRIPTION	Q'TY
11	620-1623-24	CAM GEAR	1
12	620-1624-24	GEAR COVER	1
13	621-0732-21	M-GEAR B	1
14	621-0733-20	M-GEAR C	1
15	716-1850-01	SCREW(M2.0x2.0)	5
16	716-3451-01	SCREW(M1.7x2.5)	2
17	746-0761-00	WASHER	2
18	746-0768-00	WASHER	2
19	750-6756-20	SW-L-SPRING	1
20	716-1851-03	SCREW(M2.0x3.0)	2

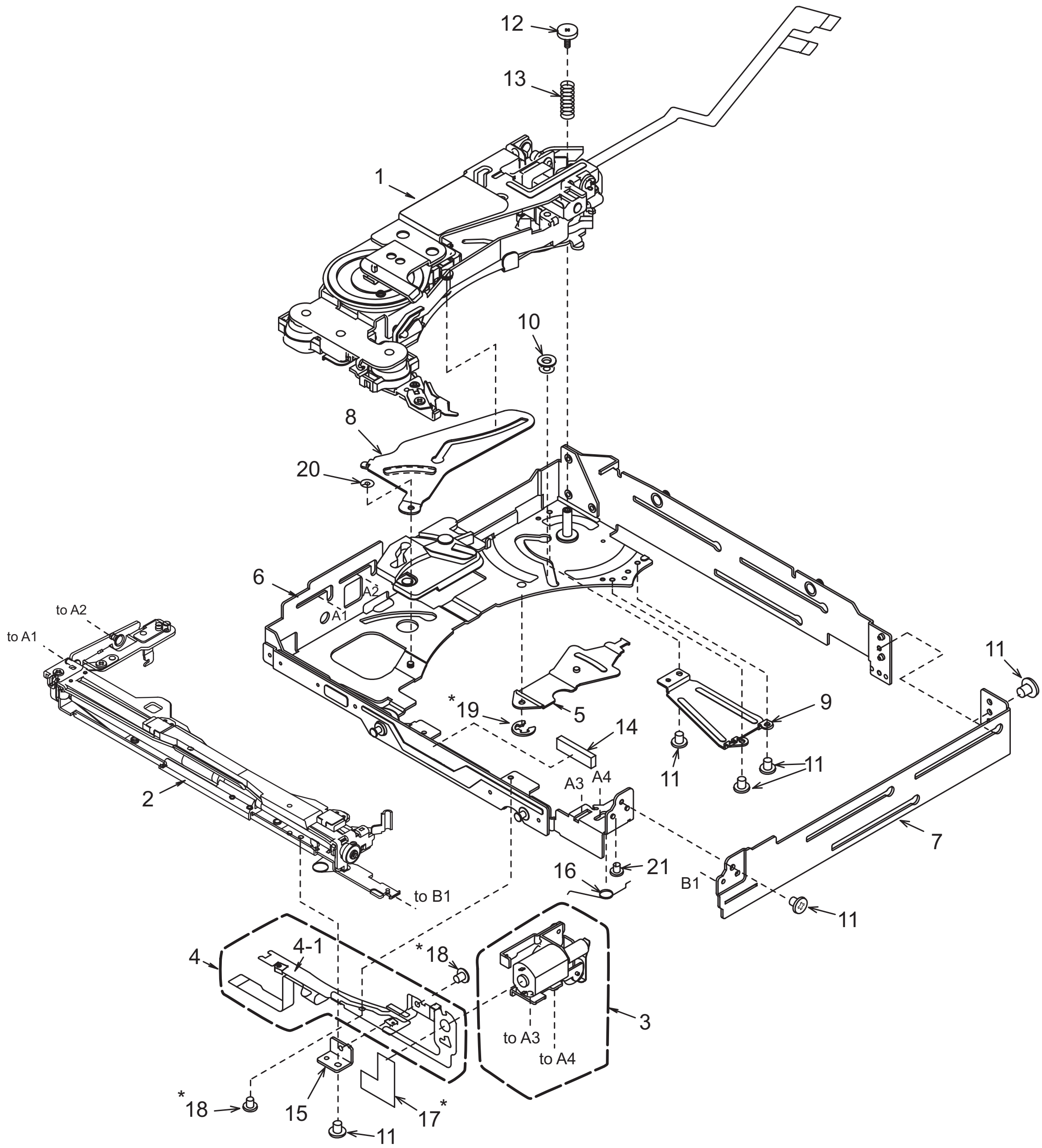
[Grease Point]

⁎ Grease: SANKOL FG-87HSR

	Put grease on the surface	
	Put grease on the reverse side	
	Put grease on the both sides	
	Put grease on the edge	



S-Drive-CH unit section : 966-1753-22



* Do not reuse the following parts.
(No.17,18,19,20)

NO.	PART NO.	DESCRIPTION	Q'TY
1	HBS-565-200	N-DRIVE UNIT	1
2	HBS-567-200	LOADING-U-ASSY	1
3	HBS-556-100	LO-MOTOR-S-ASSY	1
4	HBS-552-200	L-SENSOR-S-ASSY	1
4-1	-----------	SENSOR-L-FPC	1
5	966-0676-21	D-SHT LK-A-ASSY	1
6	966-1755-22	DRIVE-CH A ASSY	1
7	620-1681-21	DRIVE CHASSIS B	1
8	620-1672-21	DR-SUPPORT-PL	1
9	620-1680-20	D-SHIFT COVER	1
10	622-1743-21	D-SHIFT ROLLER B	1

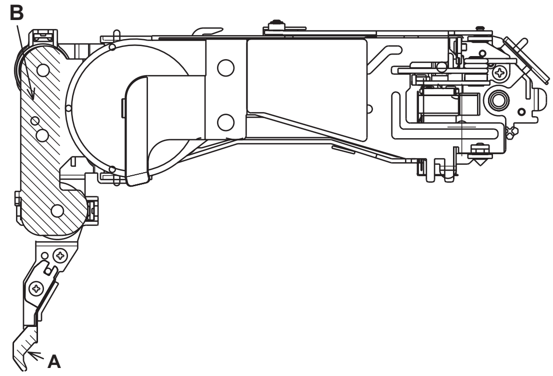
NO.	PART NO.	DESCRIPTION	Q'TY
11	716-3450-00	SCREW(M1.7x2.0)	6
12	716-3459-01	SCREW(M1.7x2.0)	1
13	750-6761-20	DRIVE SPRING A	1
14	345-5868-01	RUBBER PART	1
15	620-1651-21	S-PWB-PLATE	1
16	750-6754-20	LO-ES-SPRING B	1
17	345-5424-01	SEN-FPC GUIDE	1
18	716-1859-01	SCREW(M1.7x2.0)	2
19	744-0039-00	E-RING	1
20	746-0870-00	WASHER	1
21	716-3538-00	SCREW(M1.7x2.0)	1

[Grease Point]

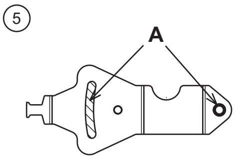
* Grease **A**: SANKOL FG-87HSR
* Grease **B**: SANKOL CFD-006MBL

	Put grease on the surface	
	Put grease on the reverse side	
	Put grease on the both sides	
	Put grease on the edge	

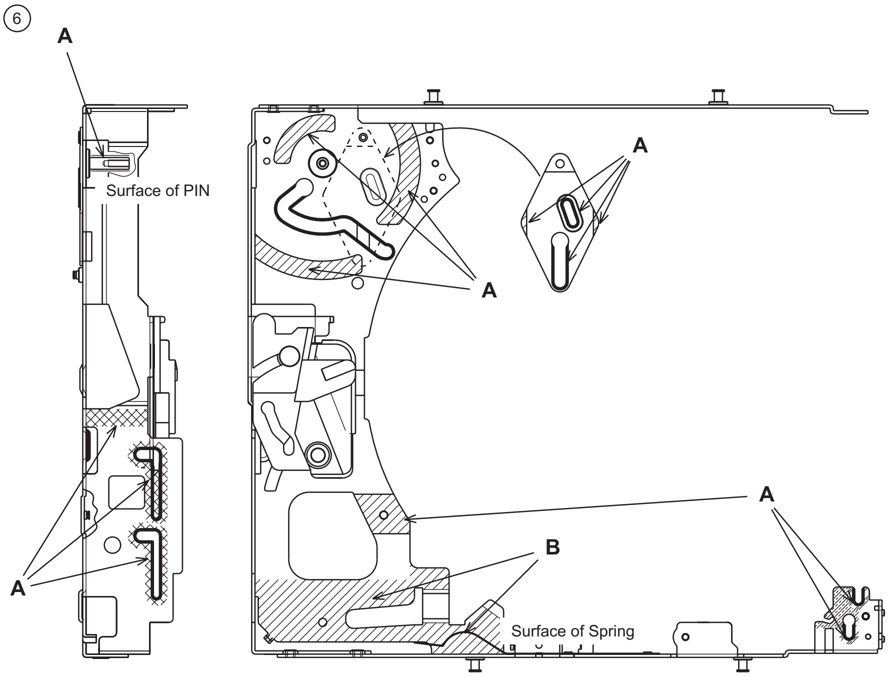
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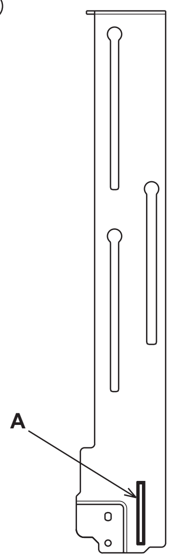
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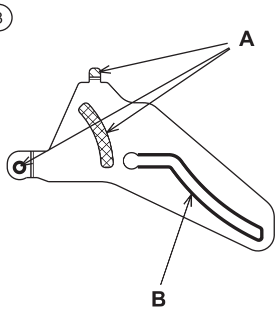
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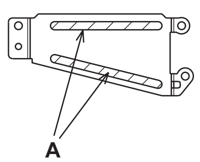
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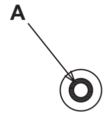
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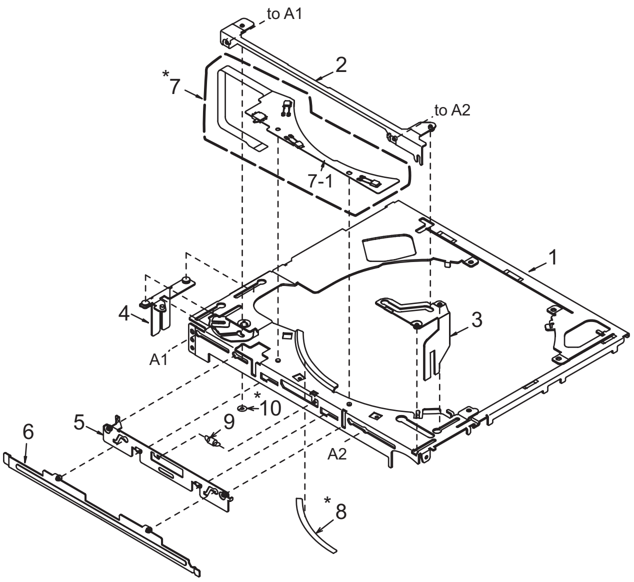
9



10



Upper unit assy section : 966-1764-21



* Do not reuse the following parts.
(No.7,8,10)

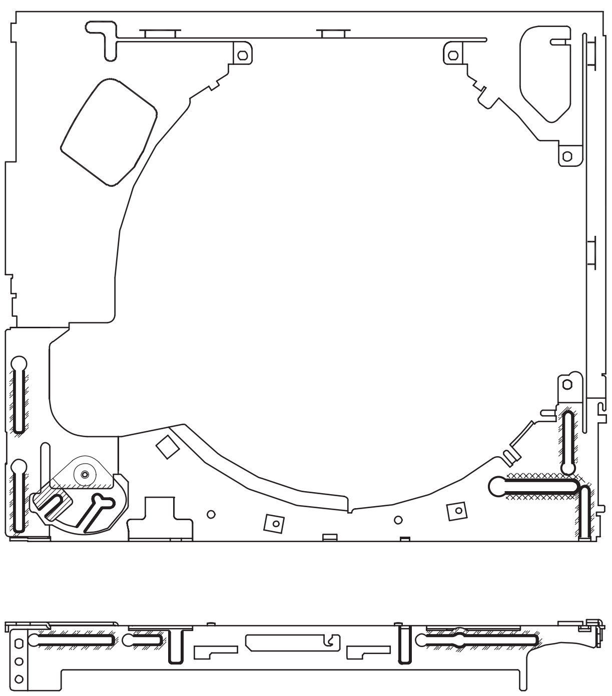
NO.	PART NO.	DESCRIPTION	Q'TY
1	966-1761-21	UPPER-CHA-ASSY	1
2	966-1765-20	LO-SHIFT A ASSY	1
3	966-0700-22	LO-SHIFT B ASSY	1
4	966-0701-21	LO-SHIFT ASSY	1
5	966-1766-20	SHUTTER-PL-ASSY	1
6	966-1763-20	SHUTTER ASSY	1
7	HBS-553-200	U-SENSOR-S-ASSY	1
7-1	-----------	SENSOR-U-FPC	1
8	347-7272-00	RATTLE SHEET	1
9	750-6755-21	SHUTTER SPRING	1
10	746-0870-00	WASHER	1

[Grease Point]

* Grease: SANKOL FG-87HSR

	Put grease on the surface	
	Put grease on the reverse side	
	Put grease on the both sides	
	Put grease on the edge	

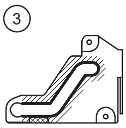
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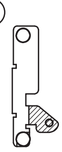
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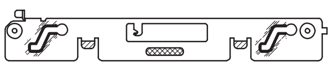
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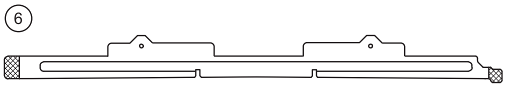
④



⑤



⑥



ELECTRICAL PARTS LIST

CD PWB(BM1) section

REF No.	PART No.	DESCRIPTION
C1	042-0672-00	25V 47uF TA
C2	166-1011-50	100pF CH
C3	168-1042-78	16V 0.1uF
C4	178-1052-78	1uF
C5	042-0671-01	10V 47uF TA
C6	168-1042-78	16V 0.1uF
C7	168-1032-55	0.01uF K
C8	168-1042-78	16V 0.1uF
C9	178-1052-78	1uF
C10	168-1042-78	16V 0.1uF
C11	168-1042-78	16V 0.1uF
C12	178-1052-78	1uF
C13	178-1052-78	1uF
C14	042-0671-01	10V 47uF TA
C15	168-1032-55	0.01uF K
C20	178-1052-78	1uF
C21	168-1042-78	16V 0.1uF
C22	178-1052-78	1uF
C23	168-1042-78	16V 0.1uF
C24	042-0671-01	10V 47uF TA
C25	168-1042-78	16V 0.1uF
C26	168-1045-56	0.1uF Z
C27	168-4732-78	0.047uF K
C28	166-4701-50	47pF CH
C29	168-4732-78	0.047uF K
C30	166-4711-50	470pF CH
C31	168-1532-55	0.015uF K
C32	166-4711-50	470pF CH
C33	168-1042-78	16V 0.1uF
C34	168-6822-55	6800pF K
C35	168-1032-55	0.01uF K
C38	168-3332-78	0.033uF K
C39	168-4722-55	4700pF K
C40	168-1042-78	16V 0.1uF
C42	168-1042-78	16V 0.1uF
C43	168-1532-55	0.015uF K
C44	168-1042-78	16V 0.1uF
C45	168-1522-55	1500pF K
C46	168-1042-78	16V 0.1uF
C47	166-6811-50	680pF
C48	166-6801-50	68pF CH
C49	178-1052-78	1uF
C50	042-0671-01	10V 47uF TA
C51	042-0671-01	10V 47uF TA
C52	178-1052-78	1uF
C53	168-1042-78	16V 0.1uF
C54	178-1052-78	1uF
C55	178-1052-78	1uF
C56	042-0671-01	10V 47uF TA
C57	168-1042-78	16V 0.1uF
C59	168-1042-78	16V 0.1uF
C60	178-1052-78	1uF
C61	168-1032-55	0.01uF K
C62	168-1042-78	16V 0.1uF
C63	168-1042-78	16V 0.1uF
C64	168-1042-78	16V 0.1uF
C65	168-1042-78	16V 0.1uF
C66	168-1042-78	16V 0.1uF
C67	168-1042-78	16V 0.1uF
C68	168-1042-78	16V 0.1uF
C70	168-1042-78	16V 0.1uF
C71	168-1042-78	16V 0.1uF
C72	168-1042-78	16V 0.1uF
C73	178-1052-78	1uF

REF No.	PART No.	DESCRIPTION
C74	168-1042-78	16V 0.1uF
C75	168-2222-55	2200pF K
C81	166-1007-50	10pF CH
C82	166-1007-50	10pF CH
C83	178-1052-78	1uF
C85	178-1052-78	1uF
C86	166-1201-50	12pF CH
C87	042-1702-90	6.3V 100uF
C91	168-1032-55	0.01uF K
CCT1	050-0145-59	1/16W 22 ohm x4
CCT2	050-0145-54	1/16W 47k ohm x4
CCT3	050-0145-54	1/16W 47k ohm x4
CCT4	050-0145-55	1/16W 10k ohm x4
D1	001-4301-14	HZU 3.0B1
D1	001-0529-14	MA8030-L
D2	001-0367-91	1SS226
D3	001-4301-16	HZU 3.3B1
D3	001-0529-16	MA8033-L
D4	001-4301-18	HZU 3.6B1
D4	001-0529-18	MA8036-L
IC1	051-6399-00	TC94A15F
IC2	052-5070-20	TMP91CY22IFG-6NH7
IC3	051-6711-20	TC94A34FG-004
IC4	051-6060-08	BD7961FM-E2
IC5	051-5452-90	BD5235G-TR
IC6	051-9318-10	GLT4160L04P-60TC
IC6	051-9318-00	MSM51V17400J-60T
IC8	051-9402-78	BR93L56RFVM-W
IC9	051-6072-08	BD7931FE2
IC10	051-5833-00	GP1S093HCZ
IC11	051-3364-90	NJU7771F15
IC12	051-3364-90	NJU7771F15
J1	074-1237-69	19PIN
J2	074-1201-65	15P
J3	074-1138-56	6P
J4	074-1100-61	SOCKET 11P
J5	074-1201-61	11P SOCKET
Q1	060-0252-01	PT4850F
Q2	125-0021-91	DTA114EUA
Q3	198-3018-00	2SK3018
Q6	131-1188-50	2SB1188PQR
Q7	125-2027-91	DTC114EUA
Q8	131-1427-00	2SB1427
Q9	131-1188-50	2SB1188PQR
Q10	125-2027-91	DTC114EUA
Q11	125-0021-91	DTA114EUA
Q12	125-2027-91	DTC114EUA
Q20	131-1427-00	2SB1427
R1	119-4731-15	1/10W 47k ohm
R2	119-2211-15	1/10W 220 ohm
R3	119-2211-15	1/10W 220 ohm
R4	119-1041-15	1/10W 100k ohm
R5	119-4731-15	1/10W 47k ohm
R6	119-2211-15	1/10W 220 ohm
R7	119-2211-15	1/10W 220 ohm
R8	119-2211-15	1/10W 220 ohm
R10	032-0140-16	1/10W 180k ohm F
R11	032-0140-96	1/10W 120k ohm F
R12	119-2231-15	1/10W 22k ohm
R13	119-4711-15	1/10W 470 ohm
R14	119-2221-15	1/10W 2.2k ohm
R15	119-1031-15	1/10W 10k ohm
R16	119-0000-05	1/10W 0 ohm JW

REF No.	PART No.	DESCRIPTION
R17	119-4731-15	1/10W 47k ohm
R18	119-2231-15	1/10W 22k ohm
R19	119-2231-15	1/10W 22k ohm
R20	119-4721-15	1/10W 4.7k ohm
R21	119-4731-15	1/10W 47k ohm
R22	119-4731-15	1/10W 47k ohm
R23	119-4731-15	1/10W 47k ohm
R24	050-0145-58	1/16W 2.2k ohm x4
R25	119-4721-15	1/10W 4.7k ohm
R26	119-4721-15	1/10W 4.7k ohm
R27	117-7511-15	1/8W 750 ohm
R28	116-3391-15	1/4W 3.3 ohm
R29	032-0145-73	1/2W 6.8 ohm
R30	119-1041-15	1/10W 100k ohm
R31	119-6811-15	1/10W 680 ohm
R32	119-1041-15	1/10W 100k ohm
R33	119-6811-15	1/10W 680 ohm
R34	119-1041-15	1/10W 100k ohm
R35	117-5611-15	1/8W 560 ohm
R36	119-1041-15	1/10W 100k ohm
R37	119-1041-15	1/10W 100k ohm
R38	119-3321-15	1/10W 3.3k ohm
R39	119-1051-15	1/10W 1M ohm
R40	119-0000-05	1/10W 0 ohm JW
R41	119-1041-15	1/10W 100k ohm
R42	119-5621-15	1/10W 5.6k ohm
R43	119-4731-15	1/10W 47k ohm
R44	119-2231-15	1/10W 22k ohm
R45	119-8231-15	1/10W 82k ohm
R46	119-3341-15	1/10W 330k ohm
R48	119-2231-15	1/10W 22k ohm
R49	116-1001-15	1/4W 10 ohm
R50	119-1011-15	1/10W 100 ohm
R51	119-6811-15	1/10W 680 ohm
R52	117-7511-15	1/8W 750 ohm
R53	116-5611-15	1/4W 560 ohm
R54	119-1041-15	1/10W 100k ohm
R55	119-1041-15	1/10W 100k ohm
R56	119-1041-15	1/10W 100k ohm
R57	119-1041-15	1/10W 100k ohm
R58	119-1041-15	1/10W 100k ohm
R59	116-1511-15	1/4W 150 ohm
R60	119-4731-15	1/10W 47k ohm
R61	119-4731-15	1/10W 47k ohm
R62	119-1051-15	1/10W 1M ohm
R64	032-0140-62	1/10W 1.0k ohm F
R65	119-2211-15	1/10W 220 ohm
R66	032-0140-53	1/10W 2.2k ohm F
R71	119-1011-15	1/10W 100 ohm
R72	119-1011-15	1/10W 100 ohm
R73	119-1011-15	1/10W 100 ohm
R77	119-0000-05	1/10W 0 ohm JW
R82	119-1011-15	1/10W 100 ohm
R83	119-1031-15	1/10W 10k ohm
R85	119-1021-15	1/10W 1k ohm
R86	119-2231-15	1/10W 22k ohm
S1	013-7416-50	SW SPVL110200
S2	013-7416-50	SW SPVL110200
S3	013-7416-50	SW SPVL110200
S4	013-7415-50	SPVG110400
X1	061-3534-90	16.92MHz
X3	060-1545-90	20MHz
PWB	039-2747-21	PWB(WITHOUT COMPONENTS)

Sensor-L-PFC(BM2)

REF No.	PART No.	DESCRIPTION
PT1	060-0252-01	PT14850F
PT2	060-0252-01	PT14850F

REF No.	PART No.	DESCRIPTION
PT3	051-5833-00	GP1S093HCZ

REF No.	PART No.	DESCRIPTION
PWB	039-2467-21	PWB(WITHOUT COMPONENTS)

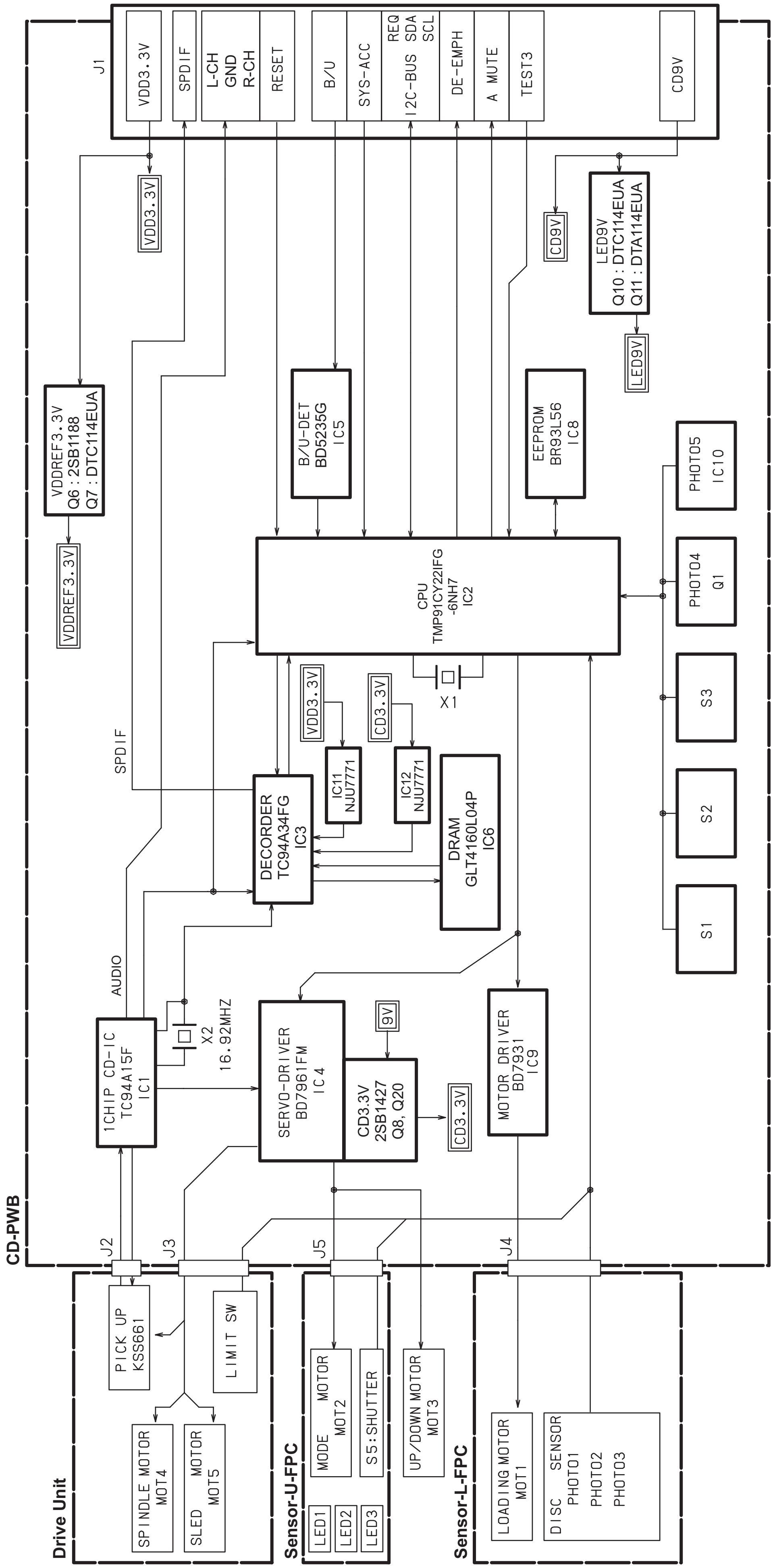
Sensor-U-PFC(BM3)

REF No.	PART No.	DESCRIPTION
LED1	001-7077-00	GL4804
LED2	001-7077-00	GL4804

REF No.	PART No.	DESCRIPTION
LED3	001-7077-00	GL4804
S5	013-7417-50	ABC1122P161

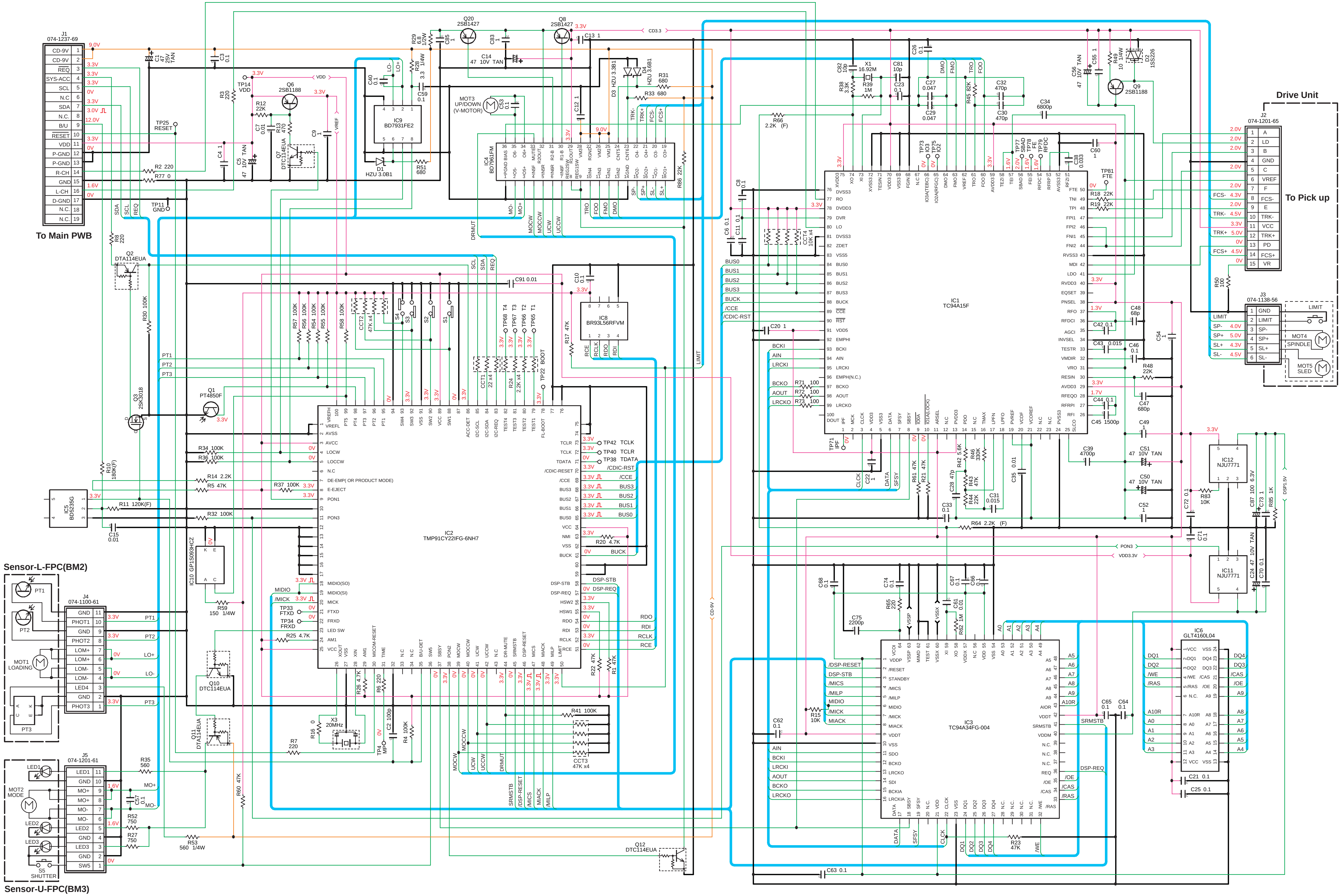
REF No.	PART No.	DESCRIPTION
PWB	039-2466-20	PWB(WITHOUT COMPONENTS)

BLOCK DIAGRAM



CIRCUIT DIAGRAM

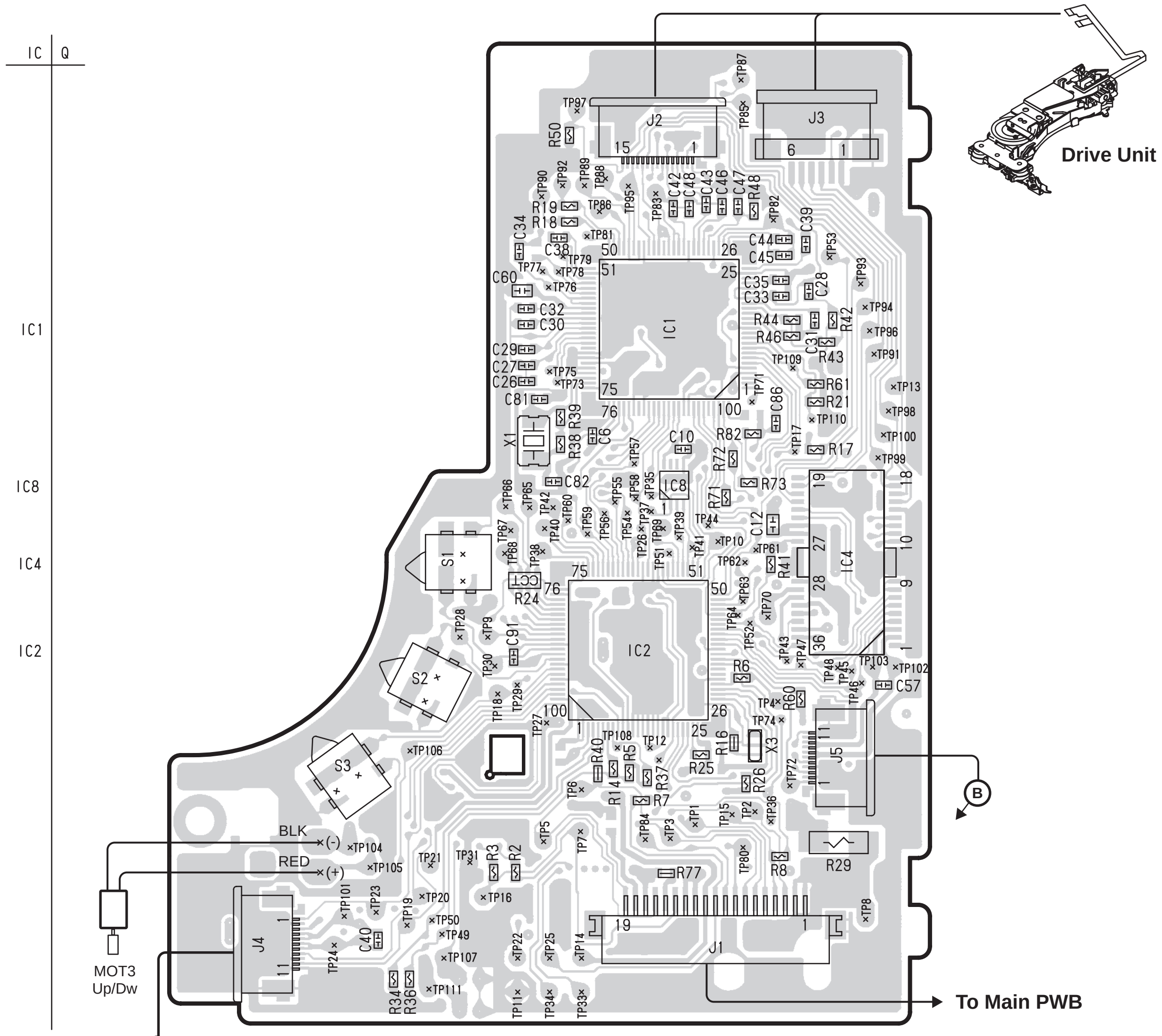
CD PWB(BM1) section
Sensor-L-FPC(BM2) section
Sensor-U-FPC(BM3) section



929-0374-81

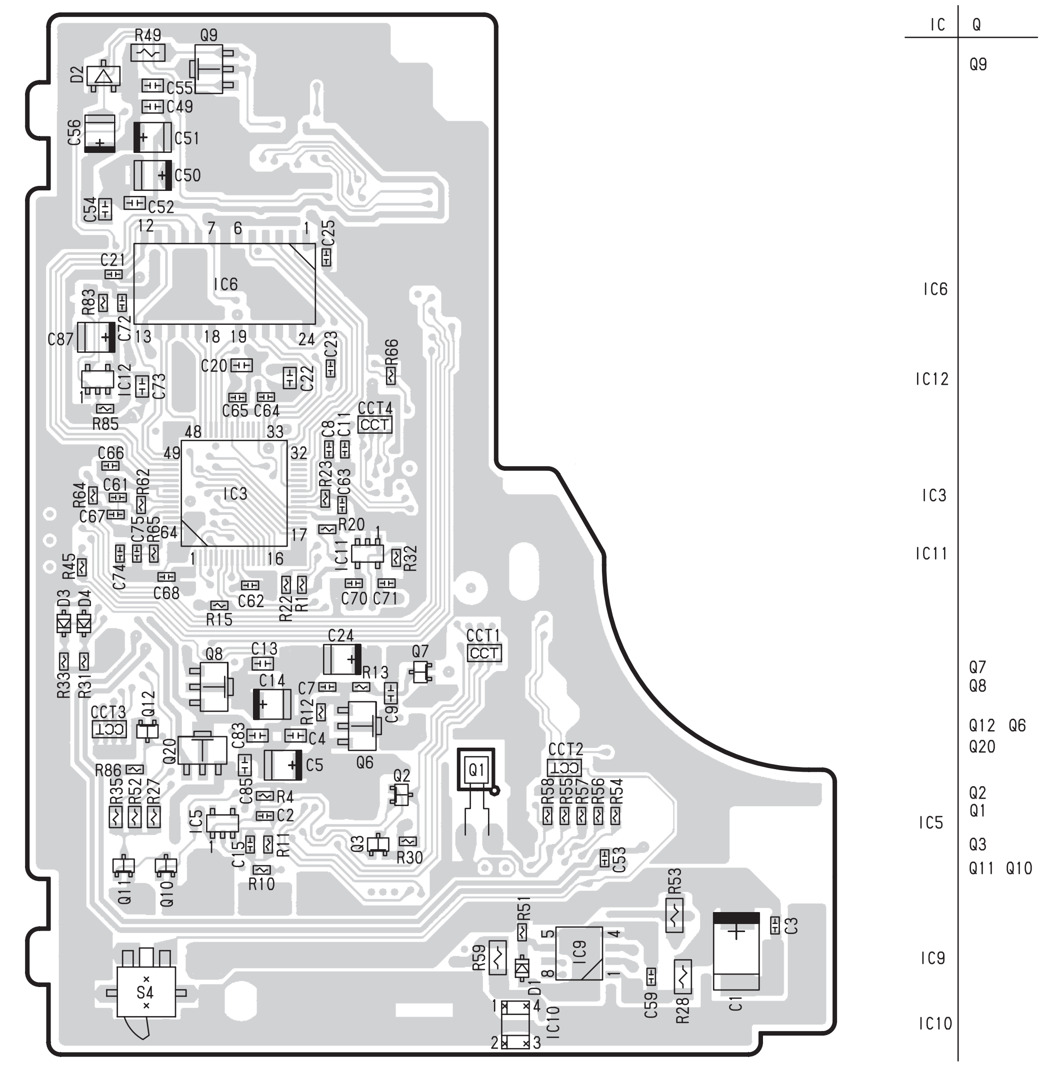
PRINTED WIRING BOARD

CD PWB(BM1) section
Sensor-L-FPC(BM2) section
Sensor-U-FPC(BM3) section



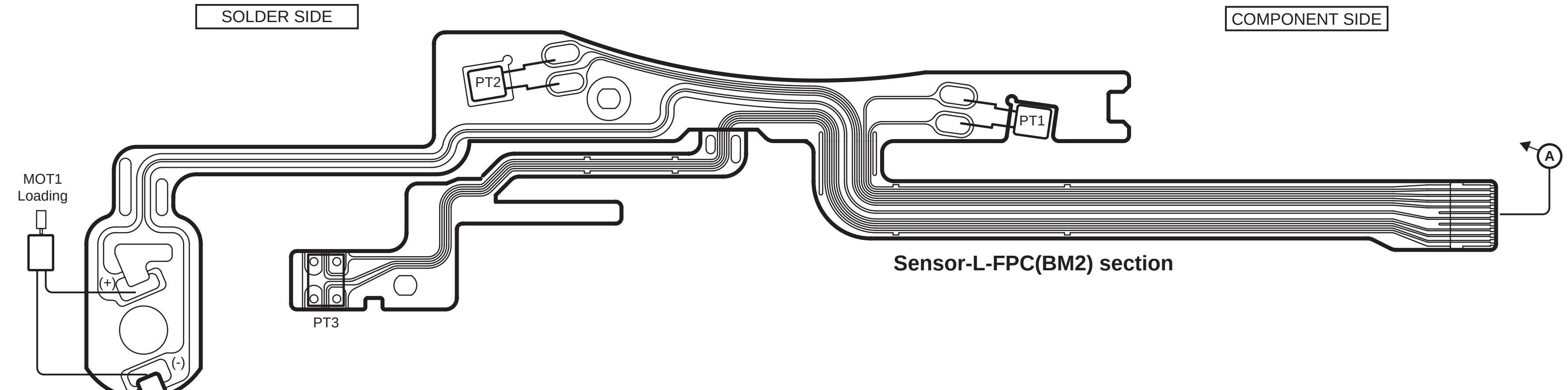
CD PWB(BM1) section

SOLDER SIDE

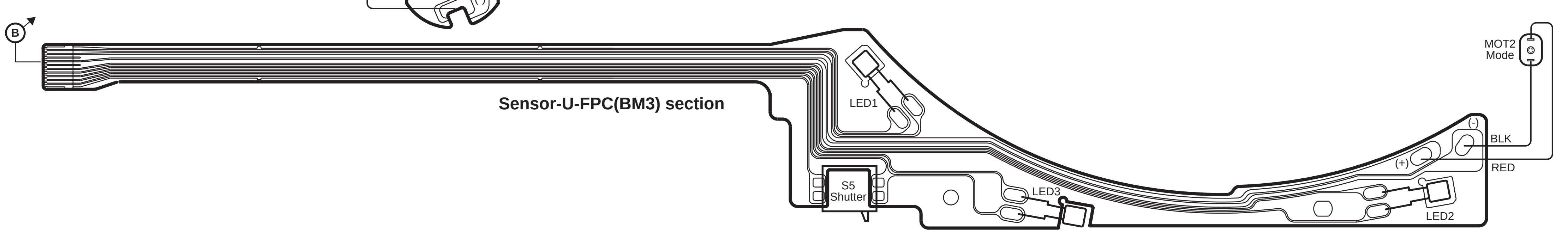


CD PWB(BM1) section

COMPONENT SIDE



Sensor-L-FPC(BM2) section



Sensor-U-FPC(BM3) section

Caution:
COMPONENT SIDE: Parts on the component side seen from the component side are indicated.
SOLDER SIDE: Parts on the solder side seen from the solder side are indicated.

929-0374-81